

4-5 EDWARD VII.

SESSIONAL PAPER No. 25

A. 1905

ANNUAL REPORT

OF THE

DEPARTMENT OF THE INTERIOR

FOR THE YEAR

1903-1904

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

PRINTED BY S. E. DAWSON, PRINTER TO THE KING'S MOST
EXCELLENT MAJESTY

1905

[No. 25—1905.]

THE

RECORDS OF THE

1860



*To His Excellency the Right Honourable Sir Albert Henry George, Earl Grey,
G.C.M.G., &c., &c., Governor General of Canada:*

MAY IT PLEASE YOUR EXCELLENCY:—

The undersigned has the honour to lay before Your Excellency the Report of the transactions of the Department of the Interior for the fiscal year ending June 30, 1904.

Respectfully submitted,

CLIFFORD SIFTON,
Minister of the Interior.

OTTAWA, November 10, 1904.

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ANNUAL REPORT

OF THE

DEPARTMENT OF THE INTERIOR

1903-1904

DEPARTMENT OF THE INTERIOR,

OTTAWA, November 8, 1904.

To the Honourable CLIFFORD SIFTON,
Minister of the Interior,
Ottawa.

SIR,— I have the honour to submit the thirty-first annual report of the Department of the Interior for the fiscal year ending June 30, 1904.

The chief functions for which the department was created in 1873 were the survey and administration of the public lands in Manitoba and the North-west Territories, as well as all other lands the ownership of which is vested in the Dominion of Canada. In 1891, the management of immigration was assigned to the Department of the Interior as it was felt that the work of administering the vacant lands of the country was so closely connected with their settlement that it would be in the public interest that the two duties should be entrusted to the one department. These functions are amongst the most important of any of those devolving upon any branch of the government service. In older countries, where the great bulk of the land has passed from the control of the state, the administration of the public domain is necessarily of secondary importance, as compared with the development of other interests. This, however, could not apply to Canada, where most of the lands, especially in the western regions, are still vested in the Crown, and under existing conditions upon the proper disposal of such lands must rest very largely the future building up of the country.

The steady increase in the flow of immigration that has been directed towards this country, the interest aroused amongst United States capitalists as to its possibilities, the attention which the wealth of its agricultural and other natural resources

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commands to-day in Great Britain, in Europe, and even in some of the most important British colonies, clearly show that Canada has at last emerged from a state of semi-stagnation in which it had remained for so many years, and its future advance, as judged by the remarkable progress of the past few years, must henceforth be by leaps and bounds.

That Canada, however, should be a nation of fifteen or twenty million inhabitants within a comparatively few years—and there are strong grounds for such belief from present indications—is a consummation to be sincerely wished for, but the question of number, desirable as it may be, is not the chief result aimed at by the department. The social character of the people that are being added to our population, and their adaptability to become loyal, prosperous and contented Canadians, is considered to be a matter of far greater moment. In this endeavour, I am glad to say, the department has been highly successful, as a careful analysis of the result of the work, both as regards the number of new arrivals and the desirable classes to which they belong will amply testify.

NEW APPOINTMENTS.

Mr. J. W. Greenway, of Winnipeg, was appointed Commissioner of Dominion Lands, on March 23, 1904, in lieu of Mr. J. G. Turriff, who resigned from this office on the 10th of the previous month.

Mr. Greenway had, for several years previous to his appointment, been engaged, under the direction of the department, in connection with the inspection and sale of school lands in Manitoba and the North-west Territories, and the knowledge which he thus gained as to the conditions and requirements of the country, coupled with his official training and long residence in western Canada would appear to especially fit him for the important duties attaching to his present office.

I wish also to record the appointment, on February 1, 1904, of Mr. R. E. Young, Dominion Land Surveyor, to the position of Superintendent of Railway and Swamp Lands. Mr. Young had since March 23, 1901, been in the employ of the department, his duties consisting chiefly in the examination of the title to lands held by railway companies who have received land subsidies from the government. Although a large proportion of these lands had been earned and finally accepted by the companies mentioned, no method had been devised and adopted for the prompt transfer of the same, and it was felt that it was in the interest of the country that the matter should be closed without further delay. Mr. Young was selected for the work, and as a result of the systematic and efficient methods which he employed in carrying out the same, the great bulk of these railway lands have to-day been patented. There still remains, however, a number of cases which require careful investigation before being disposed of, and in view of the fact that the supervision of this class of land, which involves millions of acres of the public domain, is one of very great importance, it has been felt that a special chief officer should be regularly appointed to have full charge of the matter under the direction of the department. Mr. Young, the present incumbent of the office, is a surveyor of very high standing, and his technical and profes-

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sional qualifications are such as to insure the proper administration of the new office. It may be mentioned further, that to these duties have been added those of supervising the examination and transfer of swamp lands to the province of Manitoba, as it is considered that the superintendent will be in a position to give this matter the attention that it demands, and thus expedite the transfer of these lands to the province once they have been selected by the Commissioners.

Mr. A. J. Fraser, for many years agent of Dominion Lands at Lethbridge, N.W.T., was on the 19th of November, 1903, transferred to the office of the Commissioner of Dominion Lands at headquarters, and Mr. J. W. Martin, of the Winnipeg office, was on the same date appointed agent at Lethbridge.

Mr. James E. Peaker, of Yorkton, Assa., was on the 25th of January, 1904, appointed agent of Dominion Lands at that point, in lieu of Mr. John McTaggart.

I wish also to place on record the appointment, on the 23rd of February last, of Dr. P. H. Bryce, as Chief Medical Inspector for the Departments of the Interior and Indian Affairs.

In view of the policy inaugurated some time ago of submitting to a careful medical examination, all immigrants arriving at ocean seaports, with a view to the exclusion of all subjects who might, through infectious or loathsome diseases, or other cause, be considered undesirable additions to the population, it became imperative to provide for the organization of a staff of medical inspectors at the ports of arrival, acting under the supervision of a chief officer personally responsible for the proper enforcement of the regulations in that behalf. Dr. Bryce, who for years had been secretary of the Provincial Board of Health of the province of Ontario, and who in that capacity had brought this branch of the provincial service to its well-known high state of perfection, was appointed to the position of chief medical inspector. Although he has only entered upon the performance of his new duties within a comparatively short time, the service, under his control, has been established on a practical business footing, and the machinery now provided for the inspection of immigrants is working in a most satisfactory way.

DEATHS.

I regret to have to report the deaths of three respected officials, who had for many years been members of the inside service of the department, namely, of Messrs. Frank Clayton, C. C. Rogers and R. E. Rauscher.

Mr. Clayton, although still comparatively young, was one of the oldest employees of the department, having first entered the service as clerk in the Dominion Lands Branch, under the Department of the Secretary of State, on the 5th of April, 1872. At the time of his death, Mr. Clayton held the position of keeper of survey records, a position which he had occupied since the 1st of June, 1882. He died on the 21st of October, 1903.

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Mr. Rogers had first entered the service in the month of September, 1870, and at the time of his death was charged with the custody of the printed records of the department. He died on the 18th November, 1903.

Mr. Rauscher, who was a Dominion Lands Surveyor by profession, had been in the employ of the government since the 1st September, 1869. He was attached to the Patent Branch of the department, the services of a technical officer in the line of his profession being required in that office in connection with the preparation and recording of township and other plans of survey. Mr. Rauscher died on the 18th February, 1904.

These deceased officials had by their long and faithful services earned the respect and friendship of their fellow-employees, and their demise has therefore caused heartfelt regrets amongst the officials of the department.

I regret also to report three deaths in the outside service of the department, namely, that of Mr. T. W. Fisher, of the Winnipeg Land Office, who died on the 27th November, 1903; Mr. Thomas Coyle White, son of the late Honourable Thomas White, a clerk in the Crown Timber Office at New Westminster, whose death occurred on the 17th February, 1904, and that of Mr. George Lang, an official of the Forestry Branch, resident at Indian Head, who died on the 15th March, 1904.

STATEMENT showing Gross Revenue (Cash and Scrip) received from all sources during the Fiscal Year 1903-1904, compared with the Receipts of previous Fiscal Year, 1902-1903.

| Revenue. | Fiscal year 1903-1904 Cash and Scrip | Fiscal Year 1902-1903 Cash and Scrip | Increase. | Decrease. | Total net decrease. |
|----------------------------|--|--|-----------|------------|------------------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Dominion Lands..... | 1,681,824 70 | 1,890,886 83 | ..... | 209,062 13 | ..... |
| School Lands..... | 233,769 62 | 392,206 93 | ..... | 158,437 31 | ..... |
| Seed Grain | 26,122 30 | 28,789 97 | ..... | 2,667 67 | ..... |
| Ordnance Lands..... | 30,494 34 | 17,612 79 | 12,881 55 | ..... | ..... |
| Fines and Forfeitures..... | 5,911 92 | 5,220 88 | 691 04 | ..... | ..... |
| Registration Fees..... | 109,233 73 | 81,404 18 | 27,829 55 | ..... | ..... |
| Casual Revenue..... | 3,402 94 | 2,230 26 | 1,172 68 | | |
| | 2,090,759 55 | 2,418,351 84 | 42,574 82 | 370,167 11 | 327,592 29 |

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STATEMENT showing Receipts on Account of Dominion Lands from July 1, 1872, to June 30, 1904.

| Fiscal Year. | Homestead Fees. | Preemption Fees. | Improvements. | SALES. | | Map sales, Office and Registration Fees, &c. | Surveyor's Examination Fees. | Miscellaneous, including Trust. | | Inspection, Cancellation, & Sundry Fees. | Timber Dues. |
|--------------|-----------------|------------------|---------------|--------------|--------------|--|------------------------------|---------------------------------|------|--|--------------|
| | | | | Cash. | Scrp. | | | % | cts. | | |
| 1872-73. | 6,960 00 | | | 19,170 20 | | | | | | | 109 25 |
| 1873-74. | 7,310 00 | | | 19,834 75 | | 129 00 | | 125 50 | | | 2,710 55 |
| 1874-75. | 11,510 00 | | | 13,666 90 | | | | | | | 2,335 25 |
| 1875-76. | 4,680 00 | | | 3,478 94 | 320 00 | | | | | 40 00 | 387 00 |
| 1876-77. | 2,250 00 | | | 1,085 86 | 136,955 16 | 4 00 | | 100 00 | | 290 00 | 320 00 |
| 1877-78. | 14,540 00 | | | 2,794 86 | 120,159 54 | | | | | 410 00 | 325 00 |
| 1878-79. | 17,690 00 | | | 4,998 39 | 210,904 84 | 81 00 | 180 00 | 13 70 | | 1,780 00 | 25,121 46 |
| 1879-80. | 41,255 00 | 10,241 43 | | 45,708 97 | 81,685 86 | 245 40 | 580 00 | 183 25 | | | 32,028 34 |
| 1880-81. | 20,450 00 | 10,801 75 | 269 00 | 71,170 17 | 70,828 30 | 985 40 | 420 00 | 37 58 | | | 58,753 14 |
| 1881-82. | 54,155 00 | 39,843 90 | 1,758 00 | 1,240,328 27 | 50,590 84 | 3,036 45 | 890 00 | 501 77 | | | 90,068 46 |
| 1882-83. | 73,015 00 | 54,725 00 | 7,114 91 | 516,092 21 | 33,638 40 | 3,109 50 | 580 00 | 45,706 53 | | | 147,983 10 |
| 1883-84. | 41,680 00 | 28,810 00 | 2,596 11 | 424,863 36 | 40,919 67 | 1,289 55 | 580 00 | 50,068 57 | | | 87,473 99 |
| 1884-85. | 25,645 00 | 17,100 00 | 2,328 75 | 193,275 32 | 43,875 60 | 1,621 82 | 360 00 | 20,070 00 | | | 64,820 31 |
| 1885-86. | 26,110 00 | 14,371 00 | 1,101 50 | 76,140 41 | 214,657 37 | 1,339 34 | 240 00 | 44,561 00 | | | 65,111 74 |
| 1886-87. | 19,614 00 | 6,887 93 | 1,971 55 | 48,175 76 | 337,640 19 | 1,171 39 | 220 00 | 20,591 41 | | | 94,964 55 |
| 1887-88. | 23,691 00 | 4,830 00 | 1,918 35 | 52,238 36 | 313,522 67 | 1,660 75 | 240 00 | 10,389 57 | | | 90,290 00 |
| 1888-89. | 33,460 00 | 10,550 00 | 4,128 48 | 57,513 16 | 318,238 57 | 1,410 16 | 220 00 | 3,316 23 | | | 84,642 95 |
| 1889-90. | 35,920 00 | 8,580 00 | 3,250 54 | 54,896 85 | 228,744 47 | 2,069 07 | 190 00 | 7,951 05 | | | 102,902 71 |
| 1890-91. | 29,164 10 | | 6,302 61 | 91,664 98 | 171,425 14 | 1,854 78 | 135 00 | 29,898 40 | | | 106,461 35 |
| 1891-92. | 46,994 00 | | 7,472 31 | 108,901 01 | 97,822 41 | 2,147 81 | 82 00 | 18,509 35 | | | 105,865 24 |
| 1892-93. | 37,089 74 | | 6,742 50 | 93,671 67 | 97,231 18 | 975 20 | 40 00 | 13,457 09 | | | 81,250 51 |
| 1893-94. | 36,462 26 | | 3,497 76 | 53,254 71 | 27,840 96 | 973 11 | | 6,271 77 | | | 74,079 20 |
| 1894-95. | 29,664 88 | | 3,567 90 | 37,293 71 | 23,269 62 | 695 99 | | 21,679 31 | | | 61,923 47 |
| 1895-96. | 18,278 00 | | 3,163 15 | 46,373 98 | 40,929 65 | 610 78 | | 19,421 98 | | | 68,992 82 |
| 1896-97. | 21,179 00 | | 3,737 01 | 49,335 53 | 16,920 38 | 795 05 | | 21,242 66 | | | 119,313 78 |
| 1897-98. | 34,780 00 | | 5,649 63 | 80,178 64 | 28,918 14 | 1,987 40 | | 75,085 95 | | | 155,360 63 |
| 1898-99. | 58,235 00 | | 4,297 62 | 116,598 35 | 21,307 28 | 1,262 05 | | 38,072 54 | | | 126,345 82 |
| 1899-1900. | 72,690 00 | | 4,835 81 | 103,247 58 | 88,756 22 | 1,258 85 | | 190 00 | | | 200,399 32 |
| 1900-1901. | 79,910 00 | | 5,213 32 | 40,360 93 | 328,767 03 | 3,874 14 | | 70,970 54 | | | 297,790 90 |
| 1901-1902. | 144,425 00 | | 8,481 46 | 66,950 21 | 169,767 13 | 5,792 96 | | 370 00 | | | 663 00 |
| 1902-1903. | 320,409 65 | | 11,829 08 | 155,507 59 | 158,432 66 | 5,911 96 | | 365 00 | | | 595 00 |
| 1903-1904. | 256,772 36 | | 15,119 47 | 196,750 15 | 188,424 22 | 5,549 13 | | 463 50 | | | 1,081 00 |
| | 1,651,488 99 | 206,741 01 | 115,717 72 | 4,091,521 78 | 3,648,026 40 | 51,871 54 | 7,468 50 | 797,050 26 | | 218,857 78 | 3,137,051 10 |

* Including Scrp.

STATEMENT showing Receipts on Account of Dominion Lands from July 1, 1873, to June 30, 1904—Concluded.

| Fiscal Year. | GRAZING LANDS. | | | HAY PERMITS, MINING, STONE QUARRIES, &c. | | | Rocky Moun- tains Park of Canada. | COLONIZATION LANDS. | | | Gross Revenue. | | Refunds. | | Net Revenue. |
|--------------|----------------|-------|--------|--|--------|--------|---|---------------------|-------|--------|----------------|-------|----------|---------------|--------------|
| | Cash. | | Scrip. | Cash. | | Scrip. | | Cash. | | Scrip. | \$ | cts. | \$ | cts. | |
| | \$ | cts. | | \$ | cts. | | | \$ | cts. |  |  |  |  |  |  | $ | cts. |
| 1872-73 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 26,239 45 | ..... | ..... | 26,239 45 | |
| 1873-74 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 29,980 80 | ..... | ..... | 29,980 80 | |
| 1874-75 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 27,641 15 | ..... | ..... | 27,641 15 | |
| 1875-76 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 8,865 94 | ..... | ..... | 8,865 94 | |
| 1876-77 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 140,755 02 | ..... | ..... | 140,755 02 | |
| 1877-78 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 139,584 40 | ..... | ..... | 139,584 40 | |
| 1878-79 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 234,732 93 | ..... | ..... | 234,732 93 | |
| 1879-80 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 206,801 37 | ..... | ..... | 206,801 37 | |
| 1880-81 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 206,990 54 | ..... | ..... | 206,990 54 | |
| 1881-82 | 2,245 00 | ..... | ..... | 40 00 | ..... | ..... | ..... | ..... | ..... | ..... | 1,805,734 87 | ..... | ..... | 1,805,734 87 | |
| 1882-83 | 22,844 43 | ..... | ..... | 913 91 | ..... | ..... | ..... | ..... | ..... | ..... | 1,051,403 60 | ..... | ..... | 1,051,403 60 | |
| 1883-84 | 11,370 60 | ..... | ..... | 640 90 | ..... | ..... | ..... | ..... | ..... | ..... | 1,001,776 67 | ..... | ..... | 1,001,776 67 | |
| 1884-85 | 17,089 75 | ..... | ..... | 815 63 | ..... | ..... | ..... | ..... | ..... | ..... | 451,564 65 | ..... | ..... | 451,564 65 | |
| 1885-86 | 29,562 51 | ..... | ..... | 1,284 83 | ..... | ..... | ..... | ..... | ..... | ..... | 457,373 95 | ..... | ..... | 457,373 95 | |
| 1886-87 | 14,242 77 | ..... | ..... | 1,570 40 | 80 00 | ..... | ..... | ..... | ..... | ..... | 588,532 80 | ..... | ..... | 588,532 80 | |
| 1887-88 | 23,023 28 | ..... | ..... | 2,273 73 | 80 00 | ..... | ..... | ..... | ..... | ..... | 569,986 08 | ..... | ..... | 569,986 08 | |
| 1888-89 | 2,207 69 | ..... | ..... | 3,946 55 | ..... | ..... | ..... | ..... | ..... | ..... | 594,088 04 | ..... | ..... | 594,088 04 | |
| 1889-90 | 1,921 63 | ..... | ..... | 9,242 08 | ..... | ..... | ..... | ..... | ..... | ..... | 462,536 26 | ..... | ..... | 462,536 26 | |
| 1890-91 | 3,079 55 | ..... | ..... | 8,628 44 | 160 00 | ..... | ..... | ..... | ..... | ..... | 460,990 76 | ..... | ..... | 460,990 76 | |
| 1891-92 | 3,736 80 | ..... | ..... | 5,616 85 | ..... | ..... | ..... | ..... | ..... | ..... | 452,151 08 | ..... | ..... | 452,151 08 | |
| 1892-93 | 6,380 80 | ..... | ..... | 6,266 13 | ..... | ..... | ..... | ..... | ..... | ..... | 392,324 43 | ..... | ..... | 392,324 43 | |
| 1893-94 | 5,740 79 | ..... | ..... | 6,243 15 | ..... | ..... | ..... | ..... | ..... | ..... | 250,069 12 | ..... | ..... | 250,069 12 | |
| 1894-95 | 5,353 72 | ..... | ..... | 8,628 00 | ..... | ..... | ..... | ..... | ..... | ..... | 202,983 10 | ..... | ..... | 202,983 10 | |
| 1895-96 | 7,071 86 | ..... | ..... | 5,813 51 | ..... | ..... | ..... | ..... | ..... | ..... | 227,694 93 | ..... | ..... | 227,694 93 | |
| 1896-97 | 4,715 01 | ..... | ..... | 8,518 18 | ..... | ..... | ..... | ..... | ..... | ..... | 1,009,741 63 | ..... | ..... | 1,009,741 63 | |
| 1897-98 | 4,728 58 | ..... | ..... | 699,334 76 | ..... | ..... | ..... | ..... | ..... | ..... | 206,853 57 | ..... | ..... | 206,853 57 | |
| 1898-99 | 5,245 88 | ..... | ..... | 1,130,371 60 | ..... | ..... | ..... | ..... | ..... | ..... | 1,584,328 82 | ..... | ..... | 1,584,328 82 | |
| 1899-1900 | 8,382 86 | ..... | ..... | 1,038,195 42 | ..... | ..... | ..... | ..... | ..... | ..... | 1,503,743 00 | ..... | ..... | 1,503,743 00 | |
| 1900-1901 | 7,292 48 | ..... | ..... | 14,671 99 | ..... | ..... | ..... | ..... | ..... | ..... | 1,874,159 09 | ..... | ..... | 1,874,159 09 | |
| 1901-1902 | 7,292 48 | ..... | ..... | 8,409 27 | ..... | ..... | ..... | ..... | ..... | ..... | 1,432,679 25 | ..... | ..... | 1,432,679 25 | |
| 1902-1903 | 13,913 33 | ..... | ..... | 737,878 43 | ..... | ..... | ..... | ..... | ..... | ..... | 1,890,886 99 | ..... | ..... | 1,890,886 99 | |
| 1903-1904 | 19,790 27 | ..... | ..... | 697,722 05 | ..... | ..... | ..... | ..... | ..... | ..... | 1,681,824 70 | ..... | ..... | 1,681,824 70 | |
|  | ..... | ..... | ..... | 495,579 18 | ..... | ..... | ..... | ..... | ..... | ..... | 389,949 33 | ..... | ..... | 389,949 33 | |
| | 206,938 98 | | | 5,877,933 60 | | | | 857,461 08 | | | 21,175,618 93 | | | 21,175,618 93 | |
| | | | | 219,415 24 | | | | 30,460 50 | | | 20,785,669 60 | | | 20,785,669 60 | |

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STATEMENT showing yearly the Gross Revenue (in cash only) received from all sources during the seventeen years ending June 30, 1904.

| Fiscal Year. | Dominion Lands (Cash). | | School Lands. | | Seed Grain. | | Ordnance Lands. | | Fines and Forfeitures. | | Registration Fees. | | Casual Revenue. | | Total. | |
|----------------|---------------------------|------|---------------|------|-------------|-------|--------------------|------|---------------------------|------|-----------------------|------|--------------------|------|------------|------|
| | \$ | cts. | \$ | cts. | \$ | cts. | \$ | cts. | \$ | cts. | \$ | cts. | \$ | cts. | \$ | cts. |
| 1887-1888..... | 223,360 | 73 | 42,045 | 11 | ..... | ..... | 36,239 | 88 | 1,267 | 05 | 7,212 | 02 | 372 | 79 | 310,497 | 58 |
| 1888-1889..... | 243,046 | 84 | 52,354 | 94 | 26,146 | 13 | 42,072 | 07 | 739 | 25 | 6,543 | 53 | 1,075 | 36 | 371,978 | 12 |
| 1889-1890..... | 224,770 | 16 | 45,188 | 57 | 5,017 | 44 | 29,921 | 61 | 958 | 75 | 8,806 | 39 | 261 | 63 | 314,984 | 55 |
| 1890-1891..... | 268,751 | 35 | 3,385 | 33 | 3,385 | 60 | 54,229 | 69 | 1,595 | 02 | 10,806 | 65 | 627 | 81 | 380,282 | 45 |
| 1891-1892..... | 337,106 | 07 | 136,131 | 80 | 5,957 | 65 | 42,360 | 80 | 788 | 92 | 9,302 | 11 | 532 | 14 | 532,179 | 49 |
| 1892-1893..... | 303,550 | 86 | 82,615 | 22 | 5,866 | 21 | 33,776 | 90 | 777 | 00 | 10,750 | 38 | 1,331 | 96 | 438,668 | 53 |
| 1893-1894..... | 214,540 | 30 | 47,574 | 11 | 2,339 | 16 | 22,318 | 20 | 864 | 15 | 10,358 | 02 | 1,382 | 04 | 299,975 | 98 |
| 1894-1895..... | 171,085 | 48 | 47,065 | 10 | 2,732 | 56 | 22,645 | 37 | 693 | 85 | 9,811 | 77 | 875 | 36 | 255,530 | 09 |
| 1895-1896..... | 174,509 | 38 | 56,584 | 32 | 8,748 | 05 | 17,550 | 28 | 502 | 00 | 8,737 | 87 | 1,929 | 66 | 203,552 | 56 |
| | 2,160,721 | 17 | 548,985 | 50 | 62,212 | 80 | 351,115 | 40 | 8,185 | 99 | 82,448 | 74 | 8,979 | 75 | 3,172,649 | 35 |
| 1896-1897..... | 187,424 | 19 | 24,292 | 43 | 9,887 | 13 | 9,831 | 27 | 1,316 | 00 | 8,997 | 24 | 2,683 | 05 | 244,431 | 31 |
| 1897-1898..... | 980,313 | 10 | 52,410 | 82 | 12,351 | 71 | 22,537 | 17 | 529 | 06 | 14,263 | 50 | 260 | 92 | 1,082,606 | 28 |
| 1898-1899..... | 1,563,020 | 74 | 41,249 | 77 | 12,388 | 69 | 12,349 | 65 | 2,801 | 03 | 19,220 | 73 | 2,620 | 91 | 1,633,651 | 52 |
| 1899-1900..... | 1,410,883 | 48 | 220,874 | 78 | 15,271 | 84 | 11,043 | 53 | 1,452 | 92 | 21,751 | 90 | 3,064 | 00 | 1,684,942 | 45 |
| 1900-1901..... | 1,533,137 | 07 | 48,049 | 83 | 15,711 | 63 | 14,604 | 47 | 1,977 | 96 | 33,979 | 77 | 1,587 | 57 | 1,694,108 | 30 |
| 1901-1902..... | 1,254,333 | 56 | 133,410 | 75 | 20,293 | 06 | 16,967 | 36 | 1,955 | 61 | 50,854 | 99 | 3,900 | 62 | 1,541,715 | 95 |
| 1902-1903..... | 1,716,597 | 20 | 332,206 | 93 | 28,789 | 97 | 17,612 | 79 | 5,220 | 88 | 81,404 | 18 | 2,230 | 26 | 2,244,002 | 21 |
| 1903-1904..... | 1,478,106 | 33 | 233,769 | 62 | 26,122 | 30 | 30,494 | 34 | 5,911 | 92 | 109,233 | 73 | 3,402 | 94 | 1,887,011 | 18 |
| | 10,123,875 | 67 | 1,206,264 | 93 | 140,816 | 33 | 135,440 | 58 | 21,165 | 38 | 339,706 | 04 | 20,350 | 27 | 11,987,619 | 20 |
| | 12,284,506 | 84 | 1,755,250 | 43 | 203,029 | 13 | 436,555 | 98 | 29,351 | 37 | 422,154 | 78 | 29,330 | 02 | 15,100,268 | 55 |

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STATEMENT of Receipts of Dominion Lands Revenue for the fiscal year ended June 30, 1904, compared with the Receipts for the previous fiscal year 1902-1903.

(NET CASH REVENUE.)

| Particulars. | 1903-1904. | 1902-1903 | Increase. | Decrease. | Net Decrease. |
|---|--------------|--------------|-----------|------------|---------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Homestead Fees..... | 255,772 36 | 322,409 65 | | 64,637 29 | |
| Improvements..... | 15,119 47 | 11,829 08 | 3,290 39 | | |
| General Sale of Lands..... | 196,750 15 | 155,507 59 | 41,242 56 | | |
| Map sales, office fees, &c..... | 5,549 13 | 5,911 96 | | 362 83 | |
| Timber Dues..... | 397,344 33 | 470,916 93 | | 73,572 60 | |
| Grazing Lands..... | 19,790 27 | 13,911 73 | 5,878 54 | | |
| Coal Lands..... | 510 90 | 375 65 | 135 25 | | |
| Hay Permits..... | 2,245 20 | 1,991 09 | 254 11 | | |
| Mining Fees..... | 145,975 14 | 201,019 90 | | 55,044 76 | |
| Hydraulic Leases..... | 10,383 11 | 12,467 39 | | 2,084 28 | |
| Dredging Leases..... | 1,703 11 | 6,192 27 | | 4,489 16 | |
| Export Tax on Gold..... | 272,217 96 | 302,893 48 | | 30,675 52 | |
| Free Miners' Certificates..... | 62,190 10 | 82,624 52 | | 20,434 42 | |
| Rent of Water Power..... | 63 87 | 74 35 | | 10 48 | |
| Royalty on Water sold (Yukon).... | 139 75 | | 139 75 | | |
| Free Certificates for export of gold. | 27 00 | | 27 00 | | |
| Fees <i>re</i> applications for Patents.... | 15 00 | 20 00 | | 5 00 | |
| Patent Fees and Interchange Fees. | 1,032 00 | 550 00 | 482 00 | | |
| Survey Fees..... | 56,673 15 | 103,601 70 | | 46,928 55 | |
| Irrigation Fees..... | 127 04 | 85 00 | 42 04 | | |
| Extra Assay Charges..... | 1,321 61 | | 1,321 61 | | |
| Rocky Mountains Park of Canada. | 9,106 48 | 4,268 05 | 4,838 43 | | |
| Yoho Park..... | 300 00 | | 300 00 | | |
| Rental of Lands..... | 19,693 21 | 19,403 79 | 289 42 | | |
| Fees <i>re</i> Examination D. L. S..... | 463 50 | 365 00 | 93 50 | | |
| Bonus on Timber Berth..... | 2,231 00 | | 2,231 00 | | |
| Inspection Fees..... | | 5 00 | | 5 00 | |
| Cancellation Fees..... | | 20 00 | | 20 00 | |
| Miscellaneous..... | 1,361 49 | 2,153 07 | | 791 58 | |
| Refunds..... | 1,478,106 33 | 1,716,597 20 | 60,570 60 | 299,061 47 | |
| | 35,083 66 | 21,005 57 | | 14,078 09 | |
| | 1,443,022 67 | 1,695,591 63 | 60,570 60 | 313,139 56 | 252,568 96 |

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STATEMENT of Rocky Mountains Park Revenue for fiscal year ended June 30, 1904,
compared with Revenue for previous year.

| Particulars. | Fiscal Year 1903-1904. | Fiscal Year 1902-1903. | Increase. | Decrease. | Net Increase. |
|------------------------------------|---------------------------|---------------------------|-----------|-----------|------------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Rent | 3,954 27 | 1,377 35 | 2,576 92 | | |
| Timber Dues | 750 52 | 125 00 | 625 52 | | |
| Water Rates | 100 00 | 300 00 | | 200 00 | |
| Cave and Basin | 1,124 75 | 905 00 | 219 75 | | |
| Dog Licenses | 55 00 | | 55 00 | | |
| Drivers' and Livery Licenses | 291 00 | 157 00 | 134 00 | | |
| Butcher Licenses | 20 00 | 30 00 | | 10 00 | |
| Pool and Billiards Licenses | 70 00 | 70 00 | | | |
| Pedlars' Licenses | 6 00 | | 6 00 | | |
| Camping Permits | 29 00 | 6 00 | 23 00 | | |
| Grazing Lands | 112 50 | 19 20 | 93 30 | | |
| Coal Lands | 1,207 50 | 288 00 | 919 50 | | |
| Hay Dues | 15 00 | 311 00 | | 296 00 | |
| Transfer Fees | 68 00 | 20 00 | 48 00 | | |
| Quarry Permits | 1 50 | 50 | 1 00 | | |
| Rent of Old Offices | 90 00 | | 90 00 | | |
| Sale of Old Lumber | 11 44 | | 11 44 | | |
| Sale of Buildings | 1,200 00 | 500 00 | 700 00 | | |
| Boat Licenses | | 59 00 | | 59 00 | |
| Sale of Goats | | 100 00 | | 100 00 | |
| Cash totals | 9,106 48 | 4,268 05 | 5,503 43 | 665 00 | 4,838 43 |
| Scrip | 92 00 | 795 64 | | 703 64 | |
| Cash and Scrip | 9,198 48 | 5,063 69 | 5,503 43 | 1,368 64 | 4,134 79 |

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DOMINION LANDS REVENUE.

STATEMENT of Dominion Lands Revenue for the Fiscal Year 1903-1904, compared with Receipts for the previous Fiscal Year 1902-1903.

| Agencies, etc. | Cash and Scrip 1903-1904. | | Cash and Scrip 1902-1903. | | Increase. | | Decrease. | |
|---|------------------------------|------|------------------------------|------|-----------|------|-----------|------|
| | \$ | cts. | \$ | cts. | \$ | cts. | \$ | cts. |
| <i>Yukon Territory.</i> | | | | | | | | |
| Sales of Lands..... | 12,678 | 17 | 25,473 | 96 | | | 12,795 | 79 |
| Rental of Lands..... | 19,504 | 90 | 19,299 | 79 | 205 | 11 | | |
| Survey Fees..... | 1,060 | 00 | 320 | 00 | 740 | 00 | | |
| Map sales, office fees, &c..... | 538 | 00 | 393 | 00 | 145 | 00 | | |
| Timber dues..... | 38,807 | 90 | 61,197 | 39 | | | 22,389 | 49 |
| Hay Lands..... | 467 | 55 | 277 | 67 | 189 | 88 | | |
| Mining Fees..... | 145,391 | 14 | 200,208 | 49 | | | 54,817 | 35 |
| Export tax on gold..... | 272,217 | 96 | 302,893 | 48 | | | 30,675 | 52 |
| Hydraulic Leases..... | 10,383 | 11 | 12,467 | 39 | | | 2,084 | 28 |
| Dredging Leases..... | 640 | 16 | 3,646 | 46 | | | 3,006 | 30 |
| Free Miners' Certificates..... | 62,190 | 10 | 82,624 | 52 | | | 20,434 | 42 |
| Free Certificates for Export of gold..... | 27 | 00 | | | 27 | 00 | | |
| Coal Lands..... | 5 | 50 | | | 5 | 50 | | |
| Royalty on water sold..... | 139 | 75 | | | 139 | 75 | | |
| Miscellaneous Revenue..... | 885 | 50 | 140 | 00 | 745 | 50 | | |
| | 564,936 | 74 | 708,942 | 15 | 2,197 | 74 | 146,203 | 15 |
| <i>Dominion Lands Agencies.</i> | | | | | | | | |
| Alameda..... | 27,504 | 08 | 40,385 | 10 | | | 12,881 | 02 |
| Battleford..... | 17,411 | 74 | 32,240 | 05 | | | 14,828 | 31 |
| Brandon..... | 16,822 | 35 | 32,685 | 81 | | | 15,863 | 46 |
| Calgary..... | 56,711 | 98 | 47,289 | 26 | 9,422 | 72 | | |
| Dauphin..... | 5,657 | 15 | 7,389 | 55 | | | 1,732 | 40 |
| Edmonton..... | 38,435 | 78 | 36,577 | 26 | 1,858 | 52 | | |
| Kamloops..... | 16,485 | 53 | 15,664 | 37 | 821 | 16 | | |
| Lethbridge..... | 86,046 | 18 | 106,529 | 31 | | | 20,483 | 13 |
| Minnedosa..... | 6,100 | 77 | 9,887 | 99 | | | 3,787 | 22 |
| New Westminster..... | 8,394 | 35 | 2,028 | 10 | 6,366 | 25 | | |
| Prince Albert..... | 24,013 | 35 | 35,817 | 87 | | | 11,804 | 52 |
| Red Deer..... | 16,392 | 29 | 23,451 | 71 | | | 7,059 | 42 |
| Regina..... | 246,446 | 26 | 108,851 | 27 | 137,594 | 99 | | |
| Winnipeg..... | 22,590 | 92 | 43,536 | 77 | | | 20,945 | 85 |
| Yorkton..... | 54,762 | 61 | 63,167 | 49 | | | 8,404 | 88 |
| Ungava District..... | | | 15,001 | 63 | | | 15,001 | 63 |
| Carried forward..... | 1,208,712 | 08 | 1,329,445 | 69 | 158,261 | 38 | 278,994 | 99 |

Net decrease in Yukon Revenue, \$144,005.41.

Net increase in Land Agencies, \$23,271.80.

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DOMINION LANDS REVENUE.

STATEMENT of Dominion Lands Revenue for the Fiscal Year 1903-1904, compared with Receipts for the previous Fiscal Year 1903-1904—*Continued.*

| Agencies, etc. | Cash and Scrip 1903-1904. | Cash and Scrip 1902-1903. | Increase. | | Decrease. | |
|---|------------------------------|------------------------------|------------|------|------------|------|
| | \$ cts. | \$ cts. | \$ | cts. | \$ | cts. |
| Brought forward | 1,208,712 08 | 1,329,445 69 | 158,261 38 | | 278,994 99 | |
| <i>Crown Timber Agencies.</i> | | | | | | |
| Alameda | 466 60 | 431 34 | 35 26 | | | |
| Battleford | 199 41 | 449 19 | | | 249 78 | |
| Brandon | 1,206 89 | 688 82 | 518 07 | | | |
| Calgary | 30,200 51 | 8,055 28 | 22,145 23 | | | |
| Dauphin | 9,689 84 | 8,845 37 | 844 47 | | | |
| Edmonton | 42,287 45 | 49,746 48 | | | 7,459 03 | |
| Lethbridge | 258 38 | 156 75 | 101 63 | | | |
| Minnedosa | 1,733 24 | 2,719 96 | | | 986 72 | |
| New Westminster | 98,700 62 | 189,809 67 | | | 91,109 05 | |
| Prince Albert | 38,980 98 | 32,632 31 | 6,348 67 | | | |
| Red Deer | 1,299 41 | 868 67 | 430 77 | | | |
| Regina | 206 36 | 210 70 | | | 4 34 | |
| Winnipeg | 133,080 16 | 114,949 03 | 18,131 13 | | | |
| Yorkton | 226 55 | 155 97 | 70 58 | | | |
| Rocky Mountains Park of Canada | 9,198 48 | 5,063 69 | 4,134 79 | | | |
| Yoho Park | 300 00 | | 300 00 | | | |
| Rental of Lands | 37 50 | 34 00 | 3 50 | | | |
| Fees <i>re</i> applications for Patents | 15 00 | 20 00 | | | 5 00 | |
| Patent Fees, H. O. | 442 00 | 300 00 | 142 00 | | | |
| Survey Fees | 55,613 15 | 103,281 70 | | | 47,668 55 | |
| Map sales, office fees, &c. | 4,188 63 | 4,706 51 | | | 517 88 | |
| Fees <i>re</i> Examinations, D. L. S. | 463 50 | 365 00 | 98 50 | | | |
| Refunds of refunds | 347 59 | 536 95 | | | 189 36 | |
| Bonus for Timber Berths | 2,231 00 | | 2,231 00 | | | |
| Assay charges | 1,321 61 | 1,411 23 | | | 89 62 | |
| Sub-Agents' Fees | 10 00 | | 10 00 | | | |
| Irrigation Fees | 127 04 | 85 00 | 42 04 | | | |
| Miscellaneous | 1,294 40 | 1,443 82 | | | 149 42 | |
| Mining Fees | 584 00 | 811 41 | | | 227 41 | |
| Hay Lands | 1,777 65 | 1,713 42 | 64 23 | | | |
| Coal Lands | 505 40 | 375 65 | 129 75 | | | |
| Dredging Leases | 1,062 95 | 2,545 81 | | | 1,482 86 | |
| Grazing Lands | 34,992 42 | 28,953 06 | 6,039 36 | | | |
| Rent of Water Power | 63 87 | 74 35 | | | 10 48 | |
| Total | 1,681,324 70 | 1,890,886 83 | 220,082 36 | | 429,144 49 | |
| Refunds | 36,721 75 | 21,519 84 | | | 15,201 91 | |
| Total | 1,645,102 95 | 1,869,366 99 | 220,082 36 | | 444,346 40 | |
| Net decrease | 224,264 04 | | | | | |

Net decrease in Crown Timber Agencies, \$51,183.11.

Net decrease in Miscellaneous Revenue, including refunds, \$52,347.32.

REVENUE.

As will be observed from these statements, there has been a total net decrease of \$327,592.29 in the gross revenue of the department during the last fiscal year, as compared with the revenue of the previous twelve months. When it is considered, however, that there was a decrease of over \$300,000.00 in the revenue from the Yukon Territory and the sale of School lands, it will be seen that although there has not been as large a revenue derived from homestead fees as for the previous year, and to which reference will be made again later on, the details of the gross revenue show the year has been a very successful one, in so far as the general business of the department is concerned.

The revenue of the department on account of Dominion lands for the last seven years is in excess of the revenue for the previous twenty-five years on the whole. This goes to show that a proper stimulus has been given to the movement of population towards the rich agricultural lands of Western Canada, and that this public asset, instead of being a burden to the nation as formerly, is becoming a source of revenue which will soon more than offset the expenditure necessary for the proper administration of the same.

STATEMENT showing registration fees collected from July 1, 1890, to June 30, 1904.

| Fiscal year. | Assiniboia Registration District. (Regina.) | North Alberta Re- gistration District. (Edmonton.) | South Alberta Re- gistration District. (Calgary.) | East-Saskat- chewan Re- gistration District. (Pr. Albert.) | West-Sas- atchewan Registration District. (Battleford.) | Yukon Territory Registration District. (Dawson.) | Total. |
|---------------|--|--|---|--|---|--|------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 1890-1891.... | 5,332 16 | 585 82 | 5,554 35 | 2,021 37 | 89 61 | ..... | 13,583 31 |
| 1891-1892.... | 4,810 89 | 1,160 56 | 4,090 52 | 1,409 34 | 156 32 | ..... | 11,627 63 |
| 1892-1893.... | 6,042 15 | 1,982 33 | 4,146 02 | 1,157 21 | 110 27 | ..... | 13,437 98 |
| 1893-1894.... | 6,236 41 | 2,722 74 | 2,852 44 | 1,049 65 | 86 29 | ..... | 12,947 53 |
| 1894-1895.... | 5,161 74 | 2,653 97 | 3,219 50 | 730 22 | 89 23 | ..... | 11,854 66 |
| 1895-1896.... | 4,489 29 | 2,713 66 | 2,097 61 | 728 20 | 73 20 | ..... | 10,101 96 |
| 1896-1897... | 5,339 55 | 1,900 76 | 1,991 90 | 848 75 | 123 78 | ..... | 10,204 74 |
| 1897-1898.... | 7,411 33 | 2,485 45 | 3,526 85 | 737 50 | 102 37 | ..... | 14,263 50 |
| 1898-1899.... | 9,275 55 | 3,553 73 | 3,608 90 | 1,151 95 | 31 75 | 1,598 85 | 19,220 73 |
| 1899-1900.... | 11,222 65 | 5,395 50 | 4,078 44 | 1,354 10 | 189 15 | 2,471 85 | 24,711 69 |
| 1900-1901.... | 14,317 20 | 6,995 50 | 5,207 43 | 1,662 70 | 51 13 | 5,745 81 | 33,979 77 |
| 1901-1902.... | 18,893 55 | 11,701 70 | 8,190 78 | 3,081 73 | 71 18 | 8,916 05 | 50,854 99 |
| 1902-1903.... | 36,355 00 | 20,849 90 | 11,298 55 | 6,131 90 | 206 99 | 6,561 84 | 81,404 18 |
| 1903-1904.... | 55,539 60 | 23,930 28 | 18,031 45 | 7,508 70 | 456 35 | 3,767 35 | 109,233 73 |
| | 190,427 07 | 88,631 90 | 77,894 74 | 29,573 32 | 1,837 62 | 29,061 75 | 417,426 40 |

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LAND TITLES OFFICES.

There has again been a large increase in the amount of registration fees collected during the past year, as compared with the previous one. The revenue from this source since 1897 is over four times as large as for the previous seven years, and this, I think, should be taken as a clear indication of the growing activity in real estate transactions consequent upon the increased demand on the part of persons who find it to their advantage to acquire lands in Western Canada.

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STATEMENT of Land Sales by Railway Companies having Government

| YEAR. | HUDSON'S Bay COMPANY. | | CANADIAN PACIFIC RAILWAY COMPANY | | MANITOBA SOUTH- WESTERN COLONIZA- TION RAILWAY COM- PANY. | | QU'APPELLE, AND SAS RAILROAD BOAT |
|---------------|--------------------------|-----------|-------------------------------------|------------|--|-----------|--|
| | Acres. | Amount. | Acres. | Amount. | Acres. | Amount. | Acres. |
| | | \$ | | \$ | | \$ | |
| 1893..... | | | 93,184 | 295,288 | 14,164 | 57,559 | 1,603 |
| 1894..... | 7,526 | 48,225 | 43,155 | 131,628 | 6,312 | 28,003 | 640 |
| 1895..... | 4,431 | 23,209 | 55,453 | 176,950 | 5,623 | 22,330 | 2,391 |
| 1896..... | 9,299 | 52,410 | 66,624 | 220,360 | 21,254 | 88,568 | 286 |
| 1897..... | 10,784 | 53,277 | 135,681 | 431,095 | 63,800 | 234,644 | 2,524 |
| 1898..... | 62,000 | 310,000 | 242,135 | 757,792 | 106,473 | 363,982 | 22,534 |
| 1899..... | 56,875 | 274,625 | 231,832 | 814,857 | 58,019 | 199,458 | 61,030 |
| (Fiscal Year) | | | | | | | |
| 1900..... | 70,196 | 352,631 | 379,091 | 1,152,836 | 133,507 | 437,449 | 18,932 |
| (Fiscal Year) | | | | | | | |
| 1901..... | 82,308 | 399,804 | 339,985 | 1,046,665 | 59,749 | 214,953 | 22,266 |
| (Fiscal Year) | | | | | | | |
| 1902..... | 269,577 | 1,412,332 | 1,362,478 | 4,440,500 | 206,411 | 713,365 | 39,835 |
| (Fiscal Year) | | | | | | | |
| 1903..... | 330,046 | 1,939,804 | 2,260,722 | 8,472,250 | 250,372 | 699,210 | 843,900 |
| (Fiscal Year) | | | | | | | |
| 1904..... | 144,857 | 879,910 | 857,474 | 3,516,864 | 29,522 | 113,303 | ..... |
| (Fiscal Year) | | | | | | | |
| Total. | 1,047 899 | 5,746,227 | 6,097,814 | 21,457,085 | 955,206 | 3,172,824 | 1,015,941 |

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Lands Grants and by the Hudson's Bay Company.

| LONG LAKE KATCHEWAN AND STEAM- COMPANY. | CALGARY AND EDMONTON RAILWAY COMPANY. | | CANADIAN NORTHERN RAILWAY COMPANY. | | GREAT NORTH- WEST CENTRAL RAILWAY COMPANY. | | Totals. | |
|--|---|-----------|--|---------|--|---------|------------|------------|
| Amount. | Acres. | Amount. | Acres. | Amount. | Acres. | Amount. | Acres. | Amount. |
| \$ | | \$ | | \$ | | \$ | | \$ |
| ..... | 11,260 | ..... | ..... | ..... | ..... | ..... | 120,211 | 352,847 |
| ..... | 11,035 | ..... | ..... | ..... | ..... | ..... | 68,668 | 207,856 |
| ..... | 46,815 | ..... | ..... | ..... | ..... | ..... | 114,713 | 222,489 |
| ..... | 10,553 | ..... | ..... | ..... | ..... | ..... | 108,016 | 361,338 |
| ..... | 9,436 | ..... | ..... | ..... | ..... | ..... | 222,225 | 719,016 |
| ..... | 15,481 | ..... | ..... | ..... | ..... | ..... | 448,623 | 1,431,774 |
| 178,517 | 24,738 | 53,335 | ..... | ..... | ..... | ..... | 462,494 | 1,520,792 |
| 53,974 | 46,653 | 128,256 | ..... | ..... | ..... | ..... | 648,379 | 2,125,146 |
| 74,810 | 116,719 | 352,037 | ..... | ..... | ..... | ..... | 621,027 | 2,088,269 |
| 147,365 | 323,494 | 1,033,396 | ..... | ..... | ..... | ..... | 2,201,795 | 7,746,958 |
| 1,476,900 | 231,800 | 909,600 | 183,736 | 631,503 | 123,435 | 522,490 | 4,229,011 | 14,651,757 |
| ..... | 129,007 | 563,507 | 64,469 | 313,575 | 41,858 | 177,081 | 1,267,187 | 5,564,240 |
| 1,931,566 | 976,991 | 3,040,131 | 248,205 | 945,078 | 170,293 | 699,571 | 10,512,349 | 36,992,482 |

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The following is a comparative statement of the homestead entries and sales which have been made at the several agencies of the department during the fiscal year ending June 30, 1903, and June 30, 1904, respectively :—

| | FISCAL YEAR JUNE 30, 1903. | | FISCAL YEAR JUNE 30, 1904. | |
|-----------------|----------------------------|-----------|----------------------------|-----------|
| | No. of entries. | Acres. | No. of entries. | Acres. |
| Homesteads..... | 31,383 | 5,021,280 | 26,073 | 4,171,680 |
| Sales..... | | 137,270 | | 225,652 |

The following statement shows the number of homestead entries reported in each year since 1874 :—

| Departmental year ended. | No. of entries. |
|--------------------------|-----------------|
| October 31, 1874..... | 1,376 |
| “ 31, 1875..... | 499 |
| “ 31, 1876..... | 347 |
| “ 31, 1877..... | 845 |
| “ 31, 1878..... | 1,788 |
| “ 31, 1879..... | 4,068 |
| “ 31, 1880..... | 2,074 |
| “ 31, 1881..... | 2,753 |
| “ 31, 1882..... | 7,483 |
| “ 31, 1883..... | 6,063 |
| “ 31, 1884..... | 3,753 |
| “ 31, 1885..... | 1,858 |
| “ 31, 1886..... | 2,657 |
| “ 31, 1887..... | 2,036 |
| “ 31, 1888..... | 2,655 |
| “ 31, 1889..... | 4,416 |
| “ 31, 1890..... | 2,955 |
| “ 31, 1891..... | 3,523 |
| “ 31, 1892..... | 4,840 |
| “ 31, 1893..... | 4,067 |
| “ 31, 1894..... | 3,209 |
| December 31, 1895..... | 2,394 |
| “ 31, 1896..... | 1,857 |
| “ 31, 1897..... | 2,384 |
| “ 31, 1898..... | 4,848 |
| “ 31, 1899..... | 6,689 |
| June 30, 1900..... | 7,426 |
| “ 30, 1901..... | 8,167 |
| “ 30, 1902..... | 14,673 |
| “ 30, 1903..... | 31,383 |
| “ 30, 1904..... | 26,073 |

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STATEMENT showing the number of Homestead Entries by months for the fiscal years ending June 30, 1902, 1903 and 1904.

| Fiscal Year. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | April. | May. | June. | Total. |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|
| 1902.. . . . | 939 | 773 | 582 | 783 | 762 | 825 | 809 | 928 | 1,207 | 2,078 | 2,199 | 2,788 | 14,673 |
| 1903..... | 2,622 | 1,904 | 1,416 | 2,142 | 2,482 | 1,640 | 1,169 | 1,165 | 2,325 | 5,778 | 4,109 | 4,691 | 31,383 |
| 1904..... | 3,438 | 2,288 | 1,845 | 1,958 | 2,406 | 1,570 | 1,240 | 1,128 | 1,330 | 2,322 | 2,948 | 3,600 | 26,073 |

STATEMENT showing the number of Homestead Entries made during the year ended June 30, 1904, and the Nationality of the Homesteaders, as reported by the several Agencies of the Department in Manitoba, the North-West Territories and British Columbia.

| Nationalities. | No. of Entries. | Nationalities. | No. of Entries. |
|--|-----------------|--|-----------------|
| Canadians from Ontario | 3,692 | Greeks..... | 8 |
| " Quebec..... | 429 | Syrians..... | 768 |
| " Nova Scotia..... | 131 | Germans..... | 2,228 |
| " New Brunswick..... | 102 | Austro-Hungarians..... | 31 |
| " Prince Edward Island..... | 87 | Hollanders..... | 53 |
| " Manitoba..... | 753 | Danes (other than Icelanders)..... | 194 |
| " North-West Territories..... | 493 | Icelanders..... | 542 |
| " British Columbia..... | 69 | Swedo-Norwegians..... | 238 |
| Persons who had previous entry..... | 2,487 | Russians (other than Mennonites and Doukhobors)..... | 59 |
| Canadians returned from the United States..... | 525 | Mennonites..... | 434 |
| Americans..... | 7,730 | Doukhobors..... | 3 |
| Newfoundlanders..... | 2 | Chinese..... | 3 |
| English..... | 3,486 | Bulgarians..... | 1 |
| Scotch..... | 911 | Persians..... | 7 |
| Irish..... | 267 | Australians..... | 4 |
| French..... | 154 | New Zealanders..... | |
| Belgians..... | 73 | | |
| Swiss..... | 31 | | |
| Italians..... | 22 | | |
| Roumanians..... | 56 | | |
| | | Total..... | 26,073 |
| | | Representing 68,381 souls. | |

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STATEMENT showing the number of Homestead Entries made during the year ended June 30, 1904, by persons coming from the various States and Territories of the American Union.

| States. | No. of Entries. | States. | No. of Entries. |
|-----------------------|-----------------|--------------------|-----------------|
| Alaska..... | 1 | Mississippi..... | ..... |
| Alabama..... | 3 | Missouri..... | 118 |
| Arizona..... | 11 | Montana..... | 313 |
| Arkansas..... | 6 | Nebraska..... | 288 |
| California..... | 67 | Nevada..... | 8 |
| Carolina..... | 9 | New Hampshire..... | 8 |
| Colorado..... | 50 | New Jersey..... | 5 |
| Connecticut..... | 6 | New York..... | 75 |
| Dakota..... | 2,391 | Ohio..... | 97 |
| Delaware..... | 2 | Oklahoma..... | 122 |
| Florida..... | 5 | Oregon..... | 136 |
| Georgia..... | ..... | Pennsylvania..... | 54 |
| Idaho..... | 143 | Rhode Island..... | 4 |
| Illinois..... | 205 | Tennessee..... | 4 |
| Indiana..... | 76 | Texas..... | 13 |
| Indian Territory..... | 18 | Utah..... | 226 |
| Iowa..... | 464 | Vermont..... | 12 |
| Kansas..... | 184 | Virginia..... | 12 |
| Kentucky..... | 8 | Washington..... | 295 |
| Louisiana..... | 1 | Wisconsin..... | 451 |
| Maine..... | 16 | Wyoming..... | 58 |
| Massachusetts..... | 39 | New Mexico..... | 6 |
| Michigan..... | 301 | Total..... | 8,255 |
| Minnesota..... | 1,944 | | |

FREE HOMESTEAD ENTRIES.

As will be seen from the foregoing statement, there has been a decrease in the number of homestead entries granted during the past year, as compared with the previous twelve months. It may be pointed out in this relation, however, that during the year 1902-1903, when there were over 31,000 entries made, it is well known that in addition to the active campaign put up by the department a number of land companies in the United States were also active in assisting colonization and in encouraging the taking up of free homesteads in portions of the country where these companies had purchased lands. Many of the persons making entry, having first visited the country and made their entries, returned to their homes in the south, and came back to the North-west to dwell on their lands during the next year. In addition to this some 2,000 Doukhobors made entry for lands in the year 1902-1903, although these people had come into the country in 1899. Under the circumstances, while there was a decrease in the number of homestead entries as compared with the previous year, this does not indicate that there were fewer people that went into the country, for, as a matter of fact, the immigration for the last twelve months was largely in excess of any in the history of the department.

When it is considered that the number of entries granted last year was almost twice as large as in 1902, four times as large as in 1899, and fourteen times larger than in 1896, I think that on the whole the result of the work has been very satisfactory.

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STATEMENT showing the Number of Letters Patent issued by the Department of the Interior in each year since 1874.

| Period. | Number, Issued. |
|-------------------------------------|--------------------|
| Year ended October 31, 1874..... | 536 |
| " 1875..... | 492 |
| " 1876..... | 375 |
| " 1877..... | 2,156 |
| " 1878..... | 2,597 |
| " 1879..... | 2,194 |
| " 1880..... | 1,704 |
| " 1881..... | 1,768 |
| " 1882..... | 2,766 |
| " 1883..... | 3,591 |
| " 1884..... | 3,837 |
| " 1885..... | 3,257 |
| " 1886..... | 4,570 |
| " 1887..... | 4,599 |
| " 1888..... | 3,275 |
| " 1889..... | 3,282 |
| " 1890..... | 3,273 |
| " 1891..... | 2,449 |
| " 1892..... | 2,955 |
| " 1893..... | 2,936 |
| " 1894..... | 2,553 |
| Year ended December 31, 1894..... | 2,682 |
| " 1895..... | 2,118 |
| " 1896..... | 2,665 |
| " 1897..... | 2,972 |
| " 1898..... | 3,037 |
| " 1899..... | 3,904 |
| Six months ended June 30, 1900..... | 1,970 |
| Year ended June 30, 1901..... | 6,461 |
| " 1902..... | 8,768 |
| " 1903..... | 7,349 |
| " 1904..... | 6,890 |

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The following statement shows the number of letters received and sent by the department in each year since its establishment :—

| Departmental year ended October 31. | Letters Received. | Letters Sent. | Total. |
|---|-------------------|---------------|---------|
| 1874..... | 3,482 | 4,120 | 7,632 |
| 1875..... | 1,974 | 2,189 | 4,163 |
| 1876..... | 2,256 | 3,097 | 5,353 |
| 1877..... | 3,137 | 3,677 | 6,814 |
| 1878..... | 4,642 | 6,009 | 10,651 |
| 1879..... | 5,586 | 6,179 | 11,755 |
| 1880..... | 8,222 | 9,940 | 18,162 |
| 1881..... | 13,605 | 15,829 | 29,434 |
| 1882..... | 25,500 | 30,300 | 55,800 |
| 1883..... | 27,180 | 33,500 | 60,680 |
| 1884..... | 27,525 | 33,386 | 60,911 |
| 1885..... | 33,970 | 43,997 | 77,967 |
| 1886..... | 60,964 | 67,973 | 128,937 |
| 1887..... | 47,845 | 60,890 | 108,735 |
| 1888..... | 43,407 | 52,298 | 95,705 |
| 1889..... | 48,316 | 50,500 | 98,816 |
| 1890..... | 36,200 | 36,008 | 72,208 |
| 1891..... | 38,000 | 36,267 | 74,267 |
| 1892..... | 41,990 | 42,203 | 84,193 |
| 1893..... | 50,794 | 48,145 | 98,939 |
| 1894..... | 48,619 | 50,840 | 99,459 |
| 1895..... | 49,991 | 45,898 | 95,889 |
| 1896..... | 47,501 | 44,238 | 91,739 |
| 1897..... | 65,714 | 64,147 | 129,861 |
| 1898..... | 88,913 | 87,845 | 176,758 |
| 1899..... | 95,023 | 91,876 | 186,899 |
| 1900..... | 121,219 | 133,177 | 254,396 |
| 1901..... | 144,978 | 136,348 | 281,326 |
| 1902..... | 167,200 | 185,548 | 352,748 |
| 1903 (From June 30, 1902, to July 1, 1903)..... | 185,582 | 223,463 | 409,045 |
| 1904 (From June 30, 1903, to July 1, 1904)..... | 222,316 | 274,675 | 496,991 |

The number of registered letters during the departmental year 1904 was: received, 5,496 ; sent, 21,683.

CORRESPONDENCE.

It will be seen from the foregoing statement that the correspondence of the department has been very heavy during the past year. The number of incoming and outgoing letters was very close to half a million. In this relation it may be worth while to note that the enumeration of official documents of the department will have, by the end of this year, reached the million mark. The number now is 960,000 odd, which does not include the timber and mines and the immigration branches, nor the outside service, which would bring it away beyond that number. The enumeration of the department in 1874, after the first year of its creation, was 3,482, and as it has now about reached the million mark, I wish to place the fact on record.

IMMIGRATION.

The reports of the chief immigration officers of the department in Canada and Great Britain, together with the annual statements from the agents under their control will be found under Part II of the general report.

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From the returns submitted, it will be seen that the result of the work has been highly satisfactory. The total arrivals in Canada during the twelve months ending June 30 last, numbered 130,330, or, on an average, over two thousand five hundred settlers have located in the country every week during that period, and are now engaged in the development of its resources.

It may be stated here that the method adopted by the department for checking the number of incoming immigrants at ocean sea-ports and at inland points of arrival is such that there cannot be any reasonable question raised as to the accuracy of the figures given. In this connection, I desire to make reference here to the statistical tables relating to emigration and immigration from and into the United Kingdom for the year 1903, issued by order of the home government. While the figures in these statements are given for the calendar year ending December 31, and cannot on that account correspond with the figures given by the department which are computed according to the fiscal year, still they may safely be considered for purposes of comparison. According to these tables the following number of passengers, of British and foreign origin, are given as having left England, bound for British North America, during the three calendar years 1901, 1902 and 1903, respectively, and who had not returned to the old country. The figures therefore represent the actual emigration from the British Isles to Canada during the period mentioned, and should, considering the source from which they emanate, be considered accurate.

| — | British and Irish. | Foreign. | * Total. |
|-----------|--------------------|----------|----------|
| 1901..... | 7,121 | 24,736 | 31,971 |
| 1902..... | 14,730 | 38,550 | 53,300 |
| 1903..... | 45,866 | 35,183 | 81,193 |
| | 67,717 | 98,469 | 166,464 |

* Including passengers whose nationality was not distinguished.

The figures, as computed by the Department, for the three years ending 30th June, 1903, are as follows :

| — | British and Irish. | Foreign. | Total. |
|-----------|--------------------|----------|---------|
| 1901..... | 11,810 | 19,352 | 31,162 |
| 1902..... | 17,259 | 23,732 | 40,991 |
| 1903..... | 41,792 | 37,099 | 78,891 |
| | 70,861 | 80,183 | 151,044 |
| 1904..... | 50,374 | 34,785 | 85,159 |

As will be observed, there is very little difference between the figures given in the two statements, and when it is considered that one is for the calendar year and the other for the fiscal year, it is certainly a very clear indication as to the reliability of

the statistics furnished in each case. In explanation of the discrepancy between the two statements, it may be pointed out that a large number of foreigners who land at Canadian ports do not remain in the country, but cross over to the United States, and in the same way, quite a number of immigrants of British origin come by way of New York.

It is the largest immigration in the history of Canada. While there are no doubt economic conditions underlying the movement of population from one country to another, over which individual or corporate action has little effect, still, when it is borne in mind that only a few years ago, as evidenced by the returns of that time, Canada was almost ignored by the emigrating world as a field for settlement, and that immediately following the adoption of certain methods for fostering and stimulating British and United States immigration, the number of arrivals from those countries has assumed such large proportions to-day that it exceeds the entire British emigration to the United States, there would appear to be little doubt that to the work of the department and to that alone must be attributed the favourable change that has been brought about. It is true that the country has made a remarkable advance since the flow of British and American immigration first set in, and to the development of the western portion of Canada by a large additional population must be attributed the increased prosperity of the past few years. The same opportunities, however, were available many previous years to incoming settlers as are offered now; the agricultural lands of the public domain were no less productive than they are found to be now by the thousands of well-to-do immigrants who have had the good fortune to take them up as a free gift from the government; railway facilities from ocean to ocean, through the fertile wheat fields of western Canada were afforded as far back as 1887; the gates of Canada, both along the three thousand miles of boundary on the south and at ocean ports, had always been left wide open; the natural resources of the country had always existed, but notwithstanding these favourable conditions, the British settler passed our door on his way to the neighbouring Republic, while the American agriculturist almost seemed to scorn the limitless fields extending to the north of the Western States. The moment, however, that vigorous steps were taken by the department to attract immigration to this country by judicious advertising and by the adoption of practical methods for educating the agricultural classes of the United Kingdom and the United States as to the possibilities of the country, thousands upon thousands of the most desirable settlers are pouring into Canada, and are becoming contented and prosperous citizens. This is certainly one of the most satisfactory features in the future prospects of the Dominion. It seems so manifest that the change has been brought about wholly and directly through the policy of the department that for the present it would not appear to be in the public interest to depart from the methods heretofore followed in this relation, but rather to increase the scope of this important work by even more persistent and systematic efforts in the same direction.

The approximate expenditure during the fiscal year 1903-4, chargeable against immigration from the following countries, not including the expenses connected with the reception and location of immigrants, was as follows:—

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| | |
|-------------------------------------|--------------|
| Continent of Europe.. | \$ 78,000 00 |
| Great Britain and Ireland.. | 236,000 00 |
| United States.. | 205,000 00 |

The per capita cost was as follows :—

| | |
|-------------------------------------|--------|
| Continental.. | \$2 24 |
| Great Britain and Ireland.. | 4 68 |
| United States.. | 4 53 |
| Average per capita.. | 3 98 |

The total average cost including expenditure in caring for and locating settlers in Canada was \$5.71.

STATEMENT showing approximate annual expenditure in promoting Immigration from the following countries, the number of arrivals each year, and the per capita cost from 1st July, 1892, to 30th June, 1904.

| Year. | EXPENDITURE. | | | ARRIVALS. | | | PER CAPITA COST. | | |
|-----------------|--------------------|-------------------------|----------------|--------------------|-------------------------|----------------|--------------------|-------------------------|----------------|
| | G. B. and Ireland. | Continent and Ice-land. | United States. | G. B. and Ireland. | Continent and Ice-land. | United States. | G. B. and Ireland. | Continent and Ice-land. | United States. |
| | \$ | \$ | \$ | | | | \$ cts. | \$ cts. | \$ cts. |
| 1892-3.. . . . | 49,000 | 14,000 | 56,000 | 20,071 | 9,561 | ..... | 2 44 | 1 46 | ..... |
| 1893-4.. . . . | 75,000 | 42,000 | 82,000 | 16,004 | 4,825 | ..... | 4 68 | 8 70 | ..... |
| 1894-5.. . . . | 34,000 | 6,000 | 20,000 | 14,956 | 3,834 | ..... | 2 28 | 1 56 | ..... |
| 1895-6.. . . . | 43,000 | 14,000 | 13,000 | 12,384 | 4,451 | ..... | 3 47 | 3 14 | ..... |
| 1896-7.. . . . | 38,000 | 9,000 | 28,000 | 11,383 | 7,921 | 2,412 | 3 34 | 1 14 | 11 60 |
| 1897-8.. . . . | 61,000 | 31,000 | 87,000 | 11,173 | 11,608 | 9,119 | 5 46 | 2 67 | 9 54 |
| 1898-9.. . . . | 41,000 | 37,000 | 75,000 | 10,660 | 21,938 | 11,945 | 3 84 | 1 69 | 6 27 |
| 1899-00.. . . . | 96,000 | 63,000 | 112,000 | *5,141 | *10,211 | *8,543 | 9 33 | 3 08 | 6 55 |
| 1900-01.. . . . | 110,000 | 43,000 | 144,000 | 11,810 | 19,352 | 17,987 | 9 30 | 2 22 | 8 00 |
| 1901-02.. . . . | 121,000 | 58,000 | 178,000 | 17,259 | 23,732 | 26,388 | 7 60 | 2 44 | 6 74 |
| 1902-03.. . . . | 205,000 | 60,000 | 161,000 | 41,792 | 37,099 | 49,473 | 4 90 | 1 61 | 3 25 |
| 1903-04.. . . . | 236,000 | 78,000 | 205,000 | 50,374 | 34,785 | 45,171 | 4 68 | 2 24 | 4 53 |

* Arrivals for six months only. \$81,136.76 of expenditure incurred in 1893-4 was not paid till 1894-5.

PER CAPITA COST OF IMMIGRATION.

It has been customary for some years past to give an approximate statement of the per capita cost of the different classes of immigration, as compared with the previous year. For convenience, it has been thought advisable to have a statement prepared for each year since 1892.

IMMIGRATION FOR 1903-1904.

British—

| | |
|------------------------|--------|
| English and Welsh..... | 36,694 |
| Scotch..... | 10,552 |
| Irish..... | 3,128 |

 50,374
Continental, &c.—

| | |
|---------------------------|--------|
| Galicians (Austrian)..... | 7,729 |
| Germans..... | 2,985 |
| Hungarians..... | 1,207 |
| Austrians..... | 2,201 |
| Scandinavians..... | 4,203 |
| French and Belgians..... | 2,392 |
| Russians and Finns..... | 2,806 |
| Miscellaneous..... | 11,262 |

 34,785

| | |
|--------------------|--------|
| United States..... | 45,171 |
|--------------------|--------|

 130,330

| | |
|------------------------------|--------|
| English and Welsh..... | 36,694 |
| Scotch..... | 10,552 |
| Irish..... | 3,128 |
| Galicians..... | 7,729 |
| Germans..... | 2,985 |
| Hungarians..... | 1,207 |
| Austrians..... | 2,201 |
| Scandinavians..... | 4,203 |
| Doukhobors..... | ..... |
| French and Belgians..... | 2,392 |
| Russians and Finlanders..... | 2,806 |
| United States..... | 45,171 |
| Miscellaneous..... | 11,262 |

 130,330

BRITISH IMMIGRATION.

The report of the Canadian Commissioner of Emigration at London, and those of the officers under his control, will be found under the immigration division of the general report. The commissioner's remarks with reference to the operations of his office, and his suggestions as to the general carrying out of the work, are worthy of careful consideration, and will no doubt be read with interest.

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In reviewing the work of the department as regards immigration from the British Isles, it is worthy of remark that the large increase in the number of arrivals from the old country has followed directly upon the vigorous propaganda which was inaugurated early in the year 1902, at the time of my special visit to England for the purpose of reorganizing our service there and adopting methods more suitable to the existing conditions. Quoting from my previous remarks on this subject, which appeared in my introductory to the annual report of 1901-1902, the measures which were then adopted to bring the advantages offered by Canada as a suitable field for settlement more prominently to the attention of the class from which desirable settlers can be drawn, were summarized as follows :—

‘ The dissemination of carefully prepared notices with regard to the advantages offered by Canada as a field for settlement, in the leading dailies and weeklies of Great Britain.

‘ The forwarding of a specially edited publication to every agriculturist in the old country, as well as a circular on somewhat similar lines to ministers of the gospel, school teachers, secretaries of public libraries, &c., &c., &c.

‘ The delimitation of specific districts within which our resident agents operate.

‘ The appointment under a commission system, of local agents in every city and town throughout the agricultural districts.

‘ The providing of specially conducted parties under the supervision of our officers in Great Britain and Ireland, and the reorganization of the staff in such a way as to expedite the general business of the service, and thus ensure the best possible results from their work.’

During the five years preceding 1902, there had come from England, Wales, Scotland and Ireland, 55,784 immigrants, or a yearly average of 11,156 ; immediately following the adoption of the new policy above referred to, the number of arrivals was increased to 17,259 for the fiscal year 1902; 41,792 for the year 1903, and 50,374 for the past year. These figures speak so forcibly that they do not require further comment, but, as the matter of British immigration is one of such vital national importance at the present stage of our history, I consider it a duty that I owe to yourself and to the department over which you preside to make a proper historical record of the true and exact cause which induced the motherland to recognize the claim of Canada to a fair proportion of the thousands of her children who heretofore had left her shores to seek new homes in distant parts of the world where they could not hope to enjoy the freedom of her flag and the benefits of her institutions.

The success that has been achieved by the department will, I am sure, be duly appreciated by every loyal citizen of Canada.

BRITISH IMMIGRANT CHILDREN.

The report of Mr. G. Bogue Smart, Inspector of British Immigrant Children and Receiving Homes, will be found under Division 5 of that part of the Immigration report which embraces the reports of agents in Eastern Canada.

It is satisfactory to note from the inspector's report that on the whole these children are doing remarkably well in this country, and that there is an increased demand for this class of immigration.

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There were 2,204 arrivals during the year, or an increase of 225 over the previous year.

Under the standing arrangement with the local government board in England, these children are carefully inspected annually until they reach the age of eighteen years. These inspections involve considerable work, and call for the exercise of much tact and judgment, but they ensure the proper treatment of the children, and it seems to be the only method by which juvenile immigration can be successfully carried on.

The inspector's report contains much valuable information on the subject and will no doubt be appreciated by those who take an interest in this matter.

FARM LABOURERS AND DOMESTIC SERVANTS.

With regard to farm labourers it may be said that upwards of 20,000 young men came from Great Britain during the year with perhaps little or no experience in agricultural pursuits, but with a willingness to make the best of their opportunities and to learn all that could be learned by engaging in service with practical farmers before entering into occupation of land for themselves. Since the beginning such a thing as a 'glut' or an over-stocking of farm labourers has never been known in Manitoba and the North-west Territories. The office of the Commissioner of Immigration at Winnipeg, has been made a big distributing centre for persons desiring employment. This is done to such an extent that people throughout the country recognize the fact that they can secure good help by a simple application to this office.

In order to relieve to some extent the situation in the province of Ontario, where there has been such a great dearth of labour, the department took steps early in the year to direct its agents in the old land to divert as much as possible the farm labouring classes to that province. The result of this has been that some thousands of labourers who perhaps would have gone to Western Canada were induced to remain over in Ontario, all of whom were immediately distributed by the Ontario bureau amongst farmers throughout the country. It has been found almost impracticable to divert much of the foreign population, even of the farm labouring classes, to eastern provinces, many of these people coming through to meet friends, and, moreover, nearly all of the farm labourers from the continent appear to be desirous of securing lands for themselves first, after which they go out to service and work, if they require to do so, in order to equip themselves properly for carrying on their farming operations.

With regard to domestic servants, this problem still remains an unsolved one, but it is gratifying to know that very much of the distress caused by the lack of help in this regard has been relieved by a large number of arrivals of young women from the old countries during the year. Of course there is still much demand for good help and it is regretted that much of this is amongst the farming classes.

CONTINENTAL.

The number of arrivals from the continent of Europe was 34,785, as compared with 37,099 for the previous year, or a falling off of 2,314. The falling off is attribut-

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able to a decrease in the number of arrivals from Russia, Hungary and Scandinavia. It will be noticed, however, that there has been a substantial increase in the number of immigrants from Germany, France and Belgium, who are amongst the most desirable settlers.

Alluding to the work of immigration officers in European countries, it might be well to refer to the restrictive laws in force in most of the countries as regards emigration. The laws in Switzerland, for instance, will not permit of any open propaganda or active work being carried on in that country with a view to encouraging emigration to Canada, or to any other portion of the globe, and any violation of the law in this respect is liable to prosecution. Any Swiss, therefore, who leave, do so of their own accord, and simply purchase their tickets from booking agents, and are not supposed to have been in any way encouraged to leave their old homes.

This restrictive law applies with much greater force to other countries, notably Germany, and Austria-Hungary, and portions of Scandinavia, where open propaganda are absolutely prohibited. As a consequence, the distribution of literature or any public advertising with regard to immigration cannot be undertaken by the government in those countries.

Russians are practically forbidden to leave their country without the permission of the government, and the movement of the population from there to Canada, outside of Poland, is nearly altogether from what are known as German Baptists. A very considerable number of these people have been located in the district of Alberta for a few years. In Holland, Belgium and France the laws do not restrict the propaganda excepting that in the latter country no booking agents can undertake to book persons leaving France except by lines of steamers running directly from that country. The only objection that would likely be raised by the governments of these countries would be on the propriety of any extreme measures being undertaken to promote emigration.

The department, therefore, uses a very great deal of judgment in the prosecution of this work so as not to create any ill-will on the part of the authorities of foreign countries, and only in non-restrictive countries does the government direct any active measures.

FRANCE AND BELGIUM.

As a result of the active propaganda undertaken by the department in these two countries, it will be observed that there has been a marked improvement in the results achieved. In 1903 there arrived from France and Belgium 1,240 settlers, whereas during the year ending 30th June last, there came 2,392, or about double the preceding twelve months.

The French and Belgian agriculturists are amongst the best class that can be secured for the vacant lands of Canada, and it is proposed to continue, on somewhat similar lines, the work which is now being carried out in this relation.

While the emigration laws of these countries are not as restrictive as in some of the other countries of Europe, still the position we have taken, and intend taking, in France and Belgium, is not that we desire to get those people to come to Canada who are otherwise contented at home, but that we may have the opportunity of giving information so that those people who contemplate moving may understand some of the conditions prevailing here, and we only ask, therefore, a share of the best of their people who have been on farms and who propose settling on lands—those who are leaving the over-crowded countries in any event—to come to Canada, where we feel they will have a better chance to succeed.

UNITED STATES IMMIGRATION.

The influx of people from the United States is still being maintained. A slight reduction, however, is shown in the returns, as compared with the previous year, which has been attributed to a number of causes any one of which would probably be sufficient to cause a slight falling off. It might be mentioned, however, in connection with this work of the department, that when figures as high as 50,000 have been reached a variation of a few thousand may occur any year and would not, I submit, be regarded as sufficient reason for not maintaining the same active measures which have been rewarded with such unquestioned success. Indeed it has been thought that there are many portions of the United States, especially in the older settled portions of the country, where it is quite possible that persistent and systematic effort would induce a large movement to Manitoba and the North-west Territories. It is therefore expected that with the opening of two or three active agencies in the eastern states and a limited expenditure in judicious advertising, the department may look for and will undoubtedly be rewarded with greater success than even in the past two or three years. The outlook for the present year is regarded by our staff as most encouraging and to secure the best results every effort will be put forth.

TIMBER, GRAZING AND MINERAL LANDS.

Full returns as to the business transacted in connection with the above services will be found in the report of the chief clerk in charge, under part 18, of the Dominion Lands division of the general report.

The total revenue for the branch for the fiscal year ending June 30, 1904, was \$927,915.93, as compared with \$1,107,593.64 for the previous year, or a decrease of \$179,677.71. It may be pointed out in this relation that in the revenue derived from timber dues in the railway belt in British Columbia there was a falling off of \$89,109.05, as compared with the previous twelve months, and there was a reduction also of \$133,045.23 in the general revenue of the Yukon Territory, making together a decrease of \$222,154.28. It will be observed, therefore, that there has been a substantial increase in the business transacted in connection with the province of Manitoba and the Territories.

According to the report of the Crown Timber agent at Winnipeg, there has been a large advance in the quantity of lumber manufactured and disposed of in Manitoba

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and Eastern Assiniboia during the past season, the average price ruling, as a result of the active demand, being a little higher than last year.

The revenue from the collection of dues on timber cut within the railway belt in British Columbia fell much short of that derived from that source during the preceding twelve months. There does not appear to be any reason for this falling off, but as pointed out by the Crown Timber agent at New Westminster, this may be due to the fact that license holders may have operated more extensively than usual on timber lands outside of the railway belt, these lands forming, of course, only a small proportion of the extensive timber areas of the province.

It is gratifying to note that there has been a large increase in the amount of revenue collected from the sale of coal lands, the amount derived under this head being \$68,949.25, as compared with \$31,055.38 for the year 1902-1903.

Detailed statements as to the administration of the mining lands under the control of the department will be found annexed to the chief clerk's report.

SURVEYS.

During the latter half of 1903, there were sixty-nine parties engaged in surveying Dominion lands. Of these, two were working in Manitoba, sixty-four in the Territories and three in British Columbia. This year, prior to July 1, there were seventy-one parties in the field, nine being in Manitoba, fifty-nine in the Territories and three in British Columbia. In addition to these, four parties in charge of the inspectors of surveys were engaged in examining the township subdivision surveys which have been made under contract. The following table shows the disposition of the parties paid by the day and those working under contract :—

| Parties. | In Manitoba. | In Northwest Territories. | In British Columbia. | Total. |
|---------------------------|--------------|---------------------------|----------------------|--------|
| 1903—Paid by the day..... | 2 | 11 | 3 | 16 |
| Under contract..... | | 53 | | 53 |
| 1904—Paid by the day..... | 3 | 15 | 3 | 21 |
| Under contract..... | 6 | 48 | | 54 |

Some survey work is also carried out in the Yukon Territory under the direction of the commissioner. This work included, besides the regular lots or mining locations, the surveys of a number of public roads and of several base lines connecting some of the more recent work with the older surveys.

The total mileage of the sixty-nine parties engaged on township surveys in 1903 was 36,255 miles, an average of 558 miles per party.

The surveys made in Manitoba and the North-west Territories during the year were widely scattered, having been made wherever the construction of new railroads or the trend of settlement promised the early disposal of the land.

The larger number of the townships subdivided lie either in northern Assiniboia, directly west of Saskatoon or in northern and western Alberta, to the west of Red Deer and north and west of Edmonton. The area subdivided in 1903-4, was more than double that of the previous year and far in excess of any other year's work except that of 1883, when the construction of the Canadian Pacific Railway necessitated the subdivision of the townships adjacent to it in order that the lands included in the subsidy to the railway might be defined.

The revised system of dealing with the returns of surveys, mentioned in my last report, has been found to be a great improvement. The township plans, being made by the office staff instead of by the surveyors, are now uniform in style and contain all the information that is necessary for dealing with the lands, all unnecessary details being omitted. The plans are now printed by photozincography and in black only, instead of, as formerly, being lithographed in several colours. This change has reduced the number of 'pulls,' that is, the separate handling in the printing press, to about one-fifth of what it was previously for a similar number of plans.

The practice of furnishing the land agents with preliminary plans, in advance of the receipt of the surveyor's field notes, has greatly expedited the opening of the lands for entry.

Hereunder will be found the usual tables of subdivision or settlement survey work completed each year since the commencement of the surveys, with the result of last season's operations added:—

| — | Acres. | Number of Farms of 160 acres each. | — | Acres. | Number of Farms of 160 acres each. |
|---------------------------|------------|---|--------------------------|-------------|---|
| Previous to June, 1873... | 4,792,292 | 29,952 | In 1890..... | 817,075 | 5,106 |
| In 1874..... | 4,237,864 | 26,487 | 1891..... | 76,560 | 476 |
| 1875..... | 665,000 | 4,156 | 1892..... | 1,395,200 | 8,720 |
| 1876..... | 420,507 | 2,628 | 1893..... | 2,928,640 | 18,304 |
| 1877..... | 231,691 | 1,448 | 1894..... | 300,240 | 1,876 |
| 1878..... | 306,936 | 1,918 | 1895..... | 406,240 | 2,539 |
| 1879..... | 1,130,482 | 7,066 | 1896..... | 506,560 | 3,166 |
| 1880..... | 4,472,000 | 27,950 | 1897..... | 428,640 | 2,679 |
| 1881..... | 8,147,000 | 50,919 | 1898..... | 851,840 | 5,374 |
| 1882..... | 10,186,000 | 63,662 | 1899..... | 1,022,720 | 6,392 |
| 1883..... | 27,234,000 | 170,212 | 1900 (First 6 months):.. | 735,480 | 4,596 |
| 1884..... | 6,435,000 | 40,218 | 1900-1901..... | 1,603,680 | 10,023 |
| 1885..... | 391,680 | 2,448 | 1901-1902..... | 2,553,120 | 15,957 |
| 1886..... | 1,379,010 | 8,620 | 1902-1903..... | 6,173,440 | 38,584 |
| 1887..... | 643,710 | 4,023 | 1903-1904..... | 12,709,600 | 79,435 |
| 1888..... | 1,131,840 | 7,074 | | | |
| 1889..... | 516,968 | 3,231 | Total..... | 104,819,015 | 655,230 |

The extent of the surveys made may be better realized when it is stated that the area divided into farms of 160 acres each during the last twelve months is not far short of the area of the province of Nova Scotia or about two-thirds that of Scotland or Ireland.

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INTERNATIONAL BOUNDARIES.

In my report of last year I gave the substance of the award of the London Tribunal with reference to the boundary of the coast-strip of Alaska.

It having been decided by the two governments that immediate steps should be taken to put the award into effect, commissioners were appointed to carry on the demarcation. Mr. O. H. Tittmann was appointed commissioner for the United States, and Dr. W. F. King, of this department, for His Majesty.

The commissioners having met and agreed upon a plan of operations, whereby certain sections of the line were allotted to each, while provision was made for frequent consultation of their respective surveyors, the work in the field was begun in May, and continued during the summer.

Sections of the line were marked in the valleys of several tributaries of the Chilkat river, and its principal branch the Klehini river, also in the valley of the Stikine and its tributary the Katete, and at the head of Portland canal. A topographical survey was also made in the neighbourhood of the White Pass, preparatory to the future marking of the line there. These localities were chosen as being the most important at the present time. The marks placed on the line are monuments of aluminum bronze, six feet high, at the principal points, such as river crossings, &c., smaller monuments of the same material being used in the less prominent places.

The resurvey and demarcation of the international boundary along the 49th parallel west of the Rocky Mountains has been continued during the year. The greater part of the survey of the line, and the cutting of the vista through the forest has been completed between the summit of the Rocky Mountains and the Cascade Range. Monuments of aluminum bronze, six feet high, are being used to replace the mounds of loose stone placed by the former commissioners, and to serve as marks along the sections of the line not previously surveyed.

Dr. R. A. Daly, as geologist for the boundary survey, carried on his investigations along the 49th parallel during the summer.

OPERATIONS OF THE ASTRONOMICAL BRANCH OF THE DEPARTMENT.

In my last report I referred to the determination then going on of latitudes and longitudes along the route of the Pacific cable. The observations have since been completed, and are being reduced in the office. A preliminary report by Dr. Klotz upon this work will be found as an appendix to the report of the chief astronomer in Part IX. of this report. A further and fuller report giving details of the observations and results is being prepared.

Observations for latitude and longitude for cartographical purposes have been made during the year at Harriston, Guelph, Beeton and Orillia, in Ontario, and for latitude at Cobourg, in the same province. A list of all latitudes and longitudes determined between 1885 and the present date by this department is printed in Part IX.

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The new building of the Dominion observatory will, it is hoped, be ready for occupation before spring. A part of the work of this observatory will be the electric transmission of time to the government buildings in the city. For this purpose an appropriation was made by parliament at its last session. A description of the system now in operation will be found in the Chief Astronomer's report.

THE ROCKY MOUNTAINS PARK OF CANADA.

The report of the Superintendent of the Park, which forms section V. of the general report, is of a very satisfactory and interesting character. As evidenced by the large increase in the number of tourists and health-seekers who visited the park during the past season, this national resort is steadily growing in popular favour, and there is no doubt that 'ere many years, with the development of the Canadian West and the increased transcontinental passenger traffic, the Rocky Mountains Park is destined to become the most attractive resort of the kind on the continent, if not in the world.

There has been considerable progress made in the opening up of new roads and the improvement of old ones, so that much better facilities are now afforded visitors to view points of interest of great scenic beauty hitherto inaccessible.

It is satisfactory to note also the completion of the new museum building and surrounding grounds. The particular location of the park is so remarkably well adapted for the collection of specimens of the flora and fauna indigenous to the surrounding country, and of the numerous and valuable minerals found west of the Rocky Mountains, that every effort should be made in the public interest, so that this natural history museum may be as complete as it is possible to make it. In this connection it will also be observed that the buffalo herd continues to increase and has now reached forty-six head, there having been a natural increase of six during the past year. There has also been satisfactory progress with the other animals of different species in the park preserve, the superintendent reporting increases amongst each of them.

I desire to call special attention to the remarks of the superintendent with regard to Yoho Park, and also to the valuable information contained in his report, respecting the Bankhead coal mines. His reference to the natural beauties of the Yoho valley and to the scenic magnificence generally of this extensive addition to the national park, are such as to leave no doubt as to the wisdom of the action taken by the government two years ago in reserving this tract of country for park purposes.

The discovery and opening up of the Bankhead coal mines is a matter of such national import in so far as the development and material welfare of Western Canada are concerned, that there is no doubt that the views of the superintendent with regard to the possibilities of these mines will be read with much interest.

In view of the increased population of Banff, the superintendent's reference to the urgent necessity for providing a system of waterworks and sewerage for the town, is one worthy of consideration, and the matter is now engaging the attention of the department.

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THE YUKON TERRITORY.

The report of the Commissioner of the Yukon Territory will be found under section VII. of the general report.

The general result of the year's work in the district would appear to have been quite satisfactory. While there can be no doubt, as pointed out by the commissioner, that there is not perhaps the same opportunity offered to persons with little capital to work out properties as there was at the opening up of the district, the field is one which offers very bright prospects for the operation of the mines on a larger scale. There has been a marked improvement during the past season in this regard.

There never was a country in which there was so great a boom and which underwent the inevitable re-action with less serious results than Dawson and vicinity. It should be considered that every branch of business was overdone, and while of necessity many in every branch were compelled to leave the district, the men engaged in mercantile pursuits are agreed that business has never been more substantial than it is at the present time, and from present indications there is no reason to doubt that years from now the Yukon will be much more flourishing than it ever has been.

Although the gold output for the last year has not been quite as large as for the previous season, still it remains the largest gold producing field of Canada, and the fourth largest in the world. When one considers that the total production of gold from the Yukon since 1897 has been over \$100,000,000 or over one-half of the total production of Canada since 1862, there can be no doubt as to the value of the district as a national asset.

It is gratifying to note that the affairs of the district have been administered with care, and with a due regard to economy, there being a surplus of over \$40,000 to the credit of the local revenue for the past year.

The reports of the various heads of branches, with detailed statements as to the same, will be found appended to the commissioner's report.

DOMINION OF CANADA ASSAY OFFICE.

The report of the Superintendent of Mines under Part VIII. will be found to contain very interesting information with regard to the operations of his office during the past, especially as relating to the matter of electric smelting, a subject which received considerable attention at his hands as Chairman of the Commission appointed by the government to visit Europe last year and investigate the different electrothermic processes now in operation for the smelting of iron ores and the production of steel. The report of the commission will be issued at an early date, and in view of the superintendent's statement that the results of the investigation were very gratifying there is no doubt that the commissioners' report will be read with much interest.

I desire also to call attention to the very careful data furnished by the superintendent as regards the production of peat fuel as a substitute for coal and coke which is

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now being imported into Canada so extensively. There can be no question that in view of the scarcity of coal throughout the provinces of Quebec and Ontario, and our consequent dependence upon outside supply in the matter of fuel, the subject of developing the extensive peat areas of these provinces as well as of Manitoba, and thus making up the deficiency in our fuel supply, is one which should command very careful attention from an economical point of view.

FORESTRY.

The report of the Superintendent of Forestry will be found under Part X. of the general report. There would appear to have been satisfactory progress in this important branch of the work of the department during the past season, as evidenced by the large increase in the number of trees that have been distributed to settlers applying for the same throughout Manitoba and the Territories. It is pleasing to observe from the superintendent's report that the trees given out have on the whole done exceedingly well.

From the results obtained so far through the efforts put forth by the department within the past five years to popularize the culture of trees on the western plains, there would appear to be very reasonable ground for hoping that within a few generations the present wealth of that part of the country as agricultural fields will have been very materially increased through afforestation, and that the importance of this subject, from a national standpoint, will command as much attention as it has for centuries past, and as it does to-day in the leading countries of Europe. The work of the forestry branch is of course only in its incipient stage as yet, but the results that have been obtained so far, both through its operations as an educative agency, and for the practical purpose of assisting settlers in making a success of their tree planting venture, more than fully justify the comparatively small expenditure of public moneys which the work has involved.

It is a matter of regret that there should again have been destructive forest fires during the past season. The department is fully alive to the importance of using every effort to prevent such fires, and with that end in view a staff of forest fire rangers is kept always ready at hand in the vicinity of the timber preserves under the control of the government. That these rangers are rendering very effective work is borne out by the superintendent's statement that although the past summer in British Columbia has been exceedingly dry, and that in consequence bush fires were general, through the efforts of the rangers very little merchantable timber was destroyed in that part of the country.

The superintendent's suggestions as regards the urgent necessity of having a careful examination made of the unsettled districts of the country, so as to ascertain the true character of the land and the nature of its resources, would appear to be worthy of early and serious consideration, and there is no doubt that it would be in the public interest to have steps taken on the lines indicated.

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SCHOOL LANDS.

No auction sales of School lands were held either in Manitoba or the North-west Territories during the fiscal year, but with a view to holding a series of such sales in the near future in the Territories, an inspection was made of a large number of school sections in Western Alberta, in the vicinity of the line of the Calgary and Edmonton Railway, and of the Crow's Nest Branch of the Canadian Pacific Railway, and a valuation placed thereon; and also of a considerable number of these lands in Eastern Assiniboia in the Yorkton and Saltcoats district, along the line of the Yorkton and North-western Railway. In accordance with the understanding to that effect with the North-west government, the minimum upset price was fixed at \$7 per acre.

The report of the clerk in charge of the school lands branch, which will be found under No. 27 of the Dominion lands section of the report, shows that there is a strong demand for leases of school lands for grazing purposes, 300 grazing leases having been issued during the past fiscal year. The number of these leases in force for school lands on June 30, 1904, was 914. The revenue from these lands during the fiscal year was \$11,567.33.

Nine leases have also been issued for coal mining purposes, the rental from which for the fiscal year was \$631.18. The royalty under these leases is 10 cents per ton of the coal mined, but so far no royalty has been collected as the mines are not yet in working order, but as soon as they are in active operation there will probably be a considerable revenue from this source.

The revenue from Manitoba school lands for the fiscal year was \$212,366.82, of which \$203,448.43 was from sales, and the balance from cultivation permits, grazing, timber, hay and coal, a full statement of which is shown in the report of the School Lands Branch. For the same period, the revenue from the North-west School Lands was \$21,402.80, of which \$9,104.26 was from sales. The total net revenue from both Manitoba and the Territories for the fiscal year was \$232,864.75.

The balance to the credit of the School Lands Funds of Manitoba and the several provisional districts of the North-west Territories on June 30, 1904, was as follows :—

| | |
|-----------------------|----------------|
| Manitoba. | \$1,141,474 12 |
| Assiniboia. | 167,292 33 |
| Alberta. | 50,676 21 |
| Saskatchewan. | 2,514 88 |

THE DISTRICT OF KEEWATIN.

The report of His Honour the Lieutenant Governor of Manitoba, who is ex-officio Lieutenant Governor of the District of Keewatin, upon the condition of the latter territory, will be found at Part IV. of the general report.

As mentioned by His Honour, the natives of his interior district have passed a fairly prosperous year, and the bands of Indians scattered through the country have been exempt from privation or any serious outbreak of sickness.

The Lieutenant Governor's suggestion with reference to the advisability of making provision for the administration of justice in the district, is one which demands immediate consideration, and I would recommend that such steps be taken as will provide suitable machinery in this relation, especially as regards the administration of criminal justice, and of the estates of intestates. As pointed out by His Honour, trade is extending over the district, and property is being accumulated, and there does not appear to be any reason why persons locating there should experience any difficulty in the matter of the administration of their property.

As regards the matter of the protection of game, I may say that steps have already been taken to ensure the enforcement of the law in this respect. An Order in Council was passed recently vesting in Superintendent Moodie, who has just proceeded on the ss. *Arctic* to northern portions of Keewatin, in Hudson Bay, such powers as will enable him to issue such proclamations and institute such proceedings as will put a stop to the destruction of game complained of.

I have the honour to be, sir,

Your obedient servant,

JAS. A. SMART.

PART I

DOMINION LANDS

No. 1.

REPORT OF THE COMMISSIONER.

DEPARTMENT OF THE INTERIOR,

OTTAWA, October 18, 1904.

JAS. A. SMART, Esq.,

Deputy Minister of the Interior,

Ottawa.

SIR,—I have the honour to submit my report for the year ending June 30, 1904, on this branch of the department, together with the reports of the Inspector of Agencies and the several local agents.

The work in my office during the past year has been exceptionally heavy, and there is every prospect of it increasing as immigration continues and fresh homesteads are taken up. Settlers constantly find it necessary to write to the head office for information and advice, and as many more become entitled to patent each year, the volume of work performed is proportionately increased.

I submit a comparative statement for the past six years, which sets forth the transactions of this office :—

STATEMENT OF WORK.

| | 1899. | 1900. | 1901. | 1902. | 1903. | 1904. |
|--------------------------|--------|--------|--------|--------|--------|--------|
| Files dealt with..... | 24,611 | 26,527 | 31,153 | 35,877 | 54,784 | 76,426 |
| Correspondence— | | | | | | |
| Letters sent..... | 16,284 | 18,897 | 21,620 | 25,954 | 37,169 | 52,458 |
| Triplicates..... | 8,884 | 10,585 | 16,978 | 18,887 | 28,271 | 35,865 |
| Total..... | 25,128 | 29,482 | 38,598 | 44,841 | 65,440 | 88,323 |
| Applications for patent— | | | | | | |
| No. examined..... | 4,418 | 5,464 | 5,456 | 6,929 | 8,051 | 8,961 |
| New applications..... | 2,500 | 2,373 | 2,262 | 3,116 | 4,062 | 5,039 |
| Certificates issued..... | 2,740 | 2,895 | 2,131 | 3,686 | 4,071 | 4,854 |

I would draw attention to the limited accommodation provided for my staff, and the inconvenience to which they are thereby subjected. With the prospect of a large increase in the transactions, and, consequently, additional assistance, the necessity for more room becomes more urgent.

The reports of the agents show a most satisfactory condition in the west. Settlement is proceeding rapidly, and in districts hardly known before schools, churches and post offices are being built and established, indicating the class of people who are

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coming to us. In some localities surveys are needed, and settlers are pushing forward and locating on unsurveyed lands in the expectation of securing entries when they come into the market. This is particularly noticeable in the direction of the proposed railway extensions. Where the line of the Canadian Northern Railway has been constructed there has been a great demand for homesteads, and it may be said that everywhere there is keen competition for lands, resulting in the institution of cancellation proceedings in many cases where grounds exist for believing that the duties are in default.

One consequence of this activity has been that our homestead inspectors have been heavily pressed with work, and, as the department is desirous of having all available lands thrown open to settlement, cancelling defaulting entries after due inspection, the question of appointing additional inspectors will require attention at an early date.

The crops during the present year have been excellent, and with the high prices now paid for wheat farmers are sharing in the general prosperity of the country.

The precautions taken for the prevention of forest and prairie fires have been successful, and no reports of serious damage have reached me. There is reason to believe that the forestry branch is awakening interest in the settlers to the necessity for guarding our timber, and providing for future supplies by planting trees. Great numbers of young trees are distributed for this purpose, and already many farms show the result of this movement.

Extensive sales are reported by various land companies and others, particularly in the older settlements, to people who having the necessary capital prefer locating there to going further afield and taking up homesteads. The number, if it could be ascertained, would probably materially increase the returns of the agents.

Your obedient servant,

J. W. GREENWAY,

Commissioner.

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No. 2.

REPORT OF THE INSPECTOR OF DOMINION LAND AGENCIES.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INSPECTOR OF AGENCIES,
WINNIPEG, October 3, 1904.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—In submitting my annual report for the departmental year ending June 30, 1904, I have little of public interest to relate apart from the information given in the statements appended, which show in detail, in as far as figures can reveal, the volume of work performed at the respective local land and timber offices, at the sub-offices, and by the homestead inspectors and forest rangers.

My work covered an inspection of all the local officers in connection with which you received full particulars in separate reports. From these reports you will have gathered that the business is being carried on generally in a highly satisfactory manner. Compared with the preceding year the business shows a falling off under several headings, as will be seen on reference to statement 'A.'

The agents and homestead inspectors have been active in securing cancellations of land under homestead entry wherein the entrants failed in performing the required duties. The cancellations for the year number 8,454 as against 5,112 for the preceding year.

The increase in the correspondence shown by the statement is due to the large number of cancellations and letters of inquiry from intending settlers.

As will be observed from statements 'B' and 'C,' a falling off is also shown in the amount of work performed during the year by the sub-agents of Dominion lands and the homestead inspectors. In the case of the last named the decline is not due to shortage in the work, which is rapidly increasing.

Statement 'D' gives a summary of the work performed by the forest rangers.

This staff has been very active during the year and has given excellent service.

Respectfully submitted,

E. F. STEPHENSON,
Inspector of Agencies.

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A.—DOMINION Land Agencies, principal transactions for the year ending June 30, 1904.

| Agencies. | Homestead Entries | Land Sales. | LAND SCRIP LOCATED. | | Applications for Patent received. | Land Entries cancelled. | Timber Permits issued. | LETTERS. | | REVENUE. | | No. of Staff. | EXPENDITURE. | |
|-------------------------------|-------------------|-------------|---------------------|---------|-----------------------------------|-------------------------|------------------------|-----------|---------|------------|-----------------------|---------------|--------------|-----------------|
| | | | No. | Acres. | | | | Received. | Sent. | Scrip. | Total Scrip and Cash. | | Salary. | Con-tingencies. |
| | | | | | | | | | | | | | | |
| Alameda..... | 1,682 | 27 | 33 | 4,040 | 418 | 1,008 | 787 | 18,004 | 14,475 | \$ 640 00 | \$ 23,982 19 | 4 | \$ 3,743 30 | \$ 586 62 |
| Battleford | 1,774 | 10 | 83 | 14,640 | 4 | 314 | 72 | 5,185 | 4,062 | 30 00 | 17,789 11 | 3 | 1,747 09 | 533 36 |
| Brandon..... | 469 | 63 | | | 389 | 439 | 403 | 13,643 | 13,196 | 3,999 46 | 24,152 04 | 4 | 3,919 92 | 323 12 |
| New Westminster Timber Branch | | | | | | | 67 | 2,013 | 2,108 | | 29,575 73 | 2 | 2,503 44 | 423 05 |
| Calgary..... | 2,676 | 74 | 9 | 1,931 | 298 | 573 | 715 | 23,571 | 14,650 | 8,786 67 | 52,385 83 | 6 | 3,876 53 | 685 58 |
| Dauphin..... | 389 | 11 | | | 407 | 136 | 1,448 | 6,673 | 4,762 | 200 00 | 16,244 58 | 2 | 2,183 30 | 982 29 |
| Edmonton..... | 2,584 | 62 | 131 | 16,328 | 804 | 1,075 | 1,417 | 16,547 | 14,267 | 2,109 28 | 41,816 38 | 95 | 1,400 00 | 960 49 |
| Kamloops..... | 178 | 72 | | | 43 | 33 | | 3,309 | 3,303 | 4,790 58 | 19,493 95 | 1 | 1,400 00 | 85 66 |
| Lethbridge..... | 1,731 | 189 | | | 230 | 417 | 300 | 13,622 | 8,977 | 5,833 78 | 38,512 33 | 4 | 3,482 97 | 568 04 |
| Minnedosa..... | 271 | 9 | | | 174 | 77 | 443 | 5,343 | 4,308 | 201 50 | 6,056 76 | 2 | 2,199 96 | 298 81 |
| New Westminster Lands Branch | | | | | 14 | | | 1,893 | 1,548 | 5,831 50 | 8,641 85 | 1 | 1,400 00 | 198 65 |
| Prince Albert..... | 1,637 | 33 | 16 | 2,080 | 272 | 660 | 1,262 | 8,472 | 6,937 | 1,966 76 | 36,304 68 | 5 | 3,757 44 | 320 31 |
| Red Deer..... | 1,234 | 22 | | | 330 | 490 | 895 | 11,871 | 5,947 | 1,026 43 | 17,444 89 | 2 | 2,040 00 | 361 47 |
| Regina..... | 6,622 | 98 | 115 | 12,821 | 603 | 1,911 | 591 | 39,669 | 30,384 | 10,841 01 | 86,872 87 | av12 | 10,766 64 | 1,324 59 |
| Yorkton..... | 3,992 | 40 | 93 | 18,650 | 48 | 1,011 | 411 | 14,199 | 12,069 | 4,029 76 | 53,639 68 | 6 | 4,185 89 | 346 27 |
| Winnipeg..... | 871 | 102 | | | 324 | 220 | 1,463 | 18,441 | 16,410 | 5,525 54 | 79,337 78 | av12 | 11,666 53 | 5,479 03 |
| | 26,167 | 831 | 480 | 70,490 | 48 | 4,653 | 1,027 | 202,485 | 157,303 | 55,812 27 | 552,250 65 | 72 | 63,800 01 | 12,997 34 |
| Compared with year 1903..... | 31,427 | 1,521 | 1,041 | 140,720 | 82 | 3,976 | 9,707 | 168,919 | 110,940 | 117,915 10 | 686,533 67 | 64 | 53,583 47 | 11,732 87 |

NOTE.—The contingencies of the Winnipeg Office include the salary and expenses of Forest Ranger Walkinshaw and expenses of Forest Rangers McMillan, Rutherford and Cox.

E. F. STEPHENSON,
Inspector of Agencies.

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B.—List of Sub-Agents of Dominion Lands and Statement of principal work performed by them during the year ended June 30, 1904.

| Name. | Place. | Applications or homestead entries taken. | Applications for patents taken. | Applications for timber permits taken. | Applications for hay permits taken. | Amount remitted to Land Office. | Salary. | Expenses, Postage, exchange and commission. | Remarks. |
|-------------------|-------------------|--|---------------------------------|--|-------------------------------------|---------------------------------|---------|---|--|
| | | | | | | \$ cts. | \$ cts. | \$ cts. | |
| Dubois, M. J. | Duck Lake. | 186 | 49 | 152 | 18 | 2,515 49 | 300 00 | 12 04 | |
| McIntosh, Robt. | Saskatoon. | 1,286 | | 210 | 45 | 11,888 35 | 450 00 | 76 74 | |
| Nixon, Jos. | Macleod. | 417 | 28 | 104 | 31 | 9,595 50 | 450 00 | 26 95 | |
| Taylor, R. B. | Grenfell. | 505 | 46 | 135 | 33 | 5,336 49 | 300 00 | 59 56 | |
| Douglas, R. M. | Tantallon. | 14 | 27 | | | 140 00 | 180 00 | 1 58 | |
| Walker, F. A. | Ft. Saskatchewan. | 184 | 15 | 71 | | 2,297 16 | 300 00 | 14 65 | No returns for March, April, May and June. |
| Reed, C. C. | Ponoka. | 172 | 150 | 93 | 15 | 6,166 89 | 300 00 | 44 13 | |
| Page, Spencer. | Wapella. | 82 | 56 | 8 | 5 | 2,783 30 | 300 00 | 15 02 | |
| Cook, A. B. | Arcole. | 319 | 124 | 262 | 43 | 3,738 70 | 300 00 | 41 12 | |
| Green, Seymour. | | | | | | | | | { 3 months. |
| Fysh, O. B. | Moose Jaw. | 637 | 68 | | 3 | 6,333 00 | 420 00 | 41 10 | { 9 " |
| Michell, R. M. | Weyburn. | 575 | 85 | 1 | 5 | 6,122 75 | 450 00 | 41 52 | |
| King, R. R. | | | | | | | | | { 4 months |
| Wilde, A. E. | Melfort. | 277 | 38 | 116 | | 2,958 49 | 300 00 | 18 19 | { 8 " |
| Musgrave, F. J. | Estevan. | 401 | 25 | 5 | .6 | 4,199 80 | 180 00 | | { 3 months |
| Card, C. O. | | | | | | | | | { 9 " |
| Elton, D. H. | Cardston. | 39 | 63 | 25 | | 434 50 | 300 00 | 6 70 | |
| Newth, R. | Ft. Qu'Appelle. | 715 | 27 | 25 | 26 | 7,471 10 | 300 00 | 45 10 | |
| Harley, H. | Swan River. | 142 | 124 | 321 | 22 | 2,676 64 | 300 00 | 12 26 | |
| Wilson, H. G. W. | Indian Head. | 193 | 24 | | 10 | 1,007 00 | 300 00 | 26 54 | |
| Vickerson, Frank. | Lacombe. | 474 | 156 | 143 | 28 | 6,103 68 | 450 00 | 36 39 | |
| English, J. J. | Maple Creek. | 198 | 32 | 32 | 29 | 2,207 00 | 300 00 | 20 40 | |
| Miquelon, P. A. | Wetaskiwin. | 855 | 20 | 52 | 20 | 9,128 25 | 450 00 | 50 91 | { 11 months |
| Ward, D. A. | | | | | | | | | { 1 " |
| Cox, A. E. | Picher Creek. | 214 | 59 | 58 | 5 | 4,962 70 | 300 00 | 30 69 | |
| Cochran, L. B. | Medicine Hat. | 328 | 43 | 110 | 49 | 4,451 61 | 600 00 | 45 54 | |
| Bunn, J. R. | Milestone. | 160 | 40 | 12 | 7 | 1,618 10 | 300 00 | 24 17 | |
| Holden, J. B. | Leduc. | 119 | 59 | 28 | 4 | 7,773 30 | 300 00 | 45 42 | |
| Lapointe, Jos. | Willow Bunch. | 1 | | 1 | | 10 25 | | 1 95 | Paid by commission. |
| De Duffal, H. | Rosthern. | 839 | 103 | 345 | 17 | 10,253 89 | 900 00 | 28 77 | |
| Yeo, J. W. | Stuartburn. | 99 | 64 | 187 | 19 | 1,323 32 | 300 00 | 24 27 | |
| Douglas, H. M. | Innisfail. | 214 | 48 | 157 | 18 | 2,776 30 | 300 00 | 22 45 | |
| Paul, S. B. | Moosomin. | 41 | 25 | 4 | | 723 75 | 300 00 | 9 48 | |
| Moore, O. S. | Olds. | 416 | 109 | 137 | 21 | 4,753 00 | 600 00 | 37 03 | |
| Gooderham, J. H. | | | | | | | | | { 5 months |
| Martineau, H. | Touchwood Hills. | 60 | | | | 630 75 | 180 00 | 2 62 | { 7 " |

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B.—LIST of Sub-Agents of Dominion Lands and Statement of principal work performed by them during the year ended June 30, 1904—
Continued.

| Name. | Place. | Applications or homestead entries taken. | Applications for patents taken. | Applications for timber permits taken. | Applications for day permits taken. | Amount remitted to Land Office. | | Salary. | Expenses, Postage, exchange and commission. | | Remarks. |
|--------------------------|----------------|--|---------------------------------|--|-------------------------------------|---------------------------------|------|---------|---|-------|----------|
| | | | | | | \$ | cts. | | \$ | cts. | |
| McGregor, A. B. | Davidson. | 283 | 19 | 87 | 6 | 2,920 | 00 | 300 | 00 | 19 | 16 |
| Holmes, W. E. | High River. | 544 | 1 | 1 | 7 | 5,648 | 90 | 300 | 00 | 43 | 33 |
| Millburn, Wm. | Swift Current. | 132 | 1 | 25 | 5 | 1,344 | 65 | 307 | 50 | 10 | 44 |
| Oxley, R. W. | Hanley. | 266 | 6 | 8 | 1 | 2,634 | 00 | 300 | 00 | 7 | 32 |
| Flanok, Geo. | Lloydminster. | 309 | 5 | 74 | 1 | 2,269 | 55 | 250 | 00 | 16 | 44 |
| Bender, J. M. | Nanton. | 244 | 5 | | | 2,440 | 10 | 125 | 00 | | |
| Palmason, P. | Pine Valley. | 7 | | | | 469 | 15 | 90 | 00 | | |
| Wakefield, A. G. | Ranchdale. | | | | | | | 25 | 00 | | |
| Jansen, John. | Jansen Lake. | | | | | | | 25 | 00 | | |
| Stephens, Alex. | Redvers. | | | | | | | | | | |
| Bobter, Joshua. | Dubuc. | | | | | | | | | | |
| | | 11,917 | 1,711 | 2,995 | 499 | 144,167 | 41 | 12,352 | 50 | 959 | 98 |
| Compared with year 1903. | | 13,364 | 1,356 | 2,882 | 366 | 165,221 | 55 | 10,266 | 53 | 1,001 | 33 |

E. F. STEPHENSON,
Inspector of Agencies.

SESSIONAL PAPER No. 25

C.—STATEMENT showing the work of the Homestead Inspectors for the year ended June 30, 1904.

| Name. | Headquarters. | Land Inspections made. | Applications for patent taken. | Miles travelled by Wagon. | Miles travelled by Rail. | Travelling and living expenses self and team | Expense for new and old travelling equipment. | Remarks. |
|-------------------------------|---------------------|------------------------|--------------------------------|---------------------------|--------------------------|--|---|--|
| Bryant, T. W. | Calgary. | 358 | 157 | 5,112 | 1,866 | 848 27 | 27 50 | From 19th Oct. 1903 to 30th June, 1904. 6 months. Temporary—53 days in July & Dec. 1903 & Jan., Feb., March & April 1904. |
| Borthwick, Tlios. | Prince Albert. | 178 | 52 | 2,596 | 1,623 | 463 83 | 452 25 | |
| Jerome, Martin. | Winnipeg. | 58 | 42 | 1,427 | 1,889 | 326 40 | 22 70 | |
| Jonasson, S. | " | 43 | 38 | 654 | 556 | 198 70 | ..... |  |
| Gibson, J. S. | Brandon. | 228 | 157 | 2,219 | 3,209 | 473 90 | 7 00 | |
| Buchanan, D. | Minnedosa. | 244 | 145 | 4,713 | 756 | 604 65 | 15 10 | |
| McGregor, R. E. | Dauphin. | 144 | 97 | 3,339 | 711 | 754 79 | 11 90 | |
| Bell, Geo. A. | Alameda. | 169 | 234 | 2,627 | 2,348 | 554 42 | 323 65 | 11 months. |
| McCallum, N. G. | Yorkton. | 208 | 224 | 4,677 | 1,294 | 502 86 | 22 35 | |
| Wilson, Stephen. | Red Deer. | 11 | 22 | 185 | 236 | 41 13 | 9 39 | 3 months. |
| McDiarid, Jas. | Edmonton. | 339 | 290 | 4,694 | ..... | 698 24 | 41 80 | |
| Stuart, W. W. | Calgary. | 201 | 17 | 2,616 | 9,831 | 905 29 | 125 00 | |
| Follock, J. R. | Regina. | 359 | 182 | 2,649 | 906 | 465 75 | 75 35 | 10 months. |
| Clouston, G. H. | Battleford. | 34 | 3 | 1,715 | ..... | 184 61 | 356 20 | 9 " |
| Bannerman, J. A. | Red Deer. | 209 | 62 | 1,587 | 542 | 356 14 | 126 65 | 5 " |
| Poley, R. D. | Winnipeg. | 260 | 136 | 2,879 | 1,194 | 337 95 | 70 40 | 9 " |
| Porter, S. P. | Regina. | 91 | 22 | 846 | 460 | 126 40 | 3 00 | 2 " resigned. |
| Compared with year 1903. | | 3,134 | 1,889 | 44,535 | 26,421 | 7,863 33 | 1,690 24 | |
| | | 3,217 | 2,096 | 56,651 | 31,891 | ..... | ..... |  |

E. F. STEPHENSON,
Inspector of Agencies.

D.—Work performed by Forest Rangers and Preventive Officers for the year ended June 30, 1904.

| Name. | Headquarters. | Timber permit Applications received. | Hay permit Applications received. | Seizures made. | Miles travelled by Wagon and Rail. | Land Inspections made. | Number of Applications for patent taken. | Remarks. |
|--------------------------|---------------|--------------------------------------|-----------------------------------|----------------|------------------------------------|------------------------|--|--|
| Margach, W. I. | Calgary | ..... | ..... | 24 | 11,165 | 72 | ..... | ..... |
| McDonald, D. J. | Kamloops | 35 | ..... | 1 | 3,958 | 99 | 37 | Also Homestead Inspector. |
| Young, Thos. | Dauphin | 67 | ..... | 3 | 7,245 | 113 | 64 | " |
| McMillan, Wm. | Treherne | 11 | 2 | 7 | 5,042 | 106 | 156 | " |
| Walkinslaw, C. A. | Boissevain | 49 | 6 | ..... | 2,563 | 5 | ..... | " |
| Rutherford, John. | Carlyle | 461 | ..... | ..... | 4,046 | 80 | ..... | ..... |
| Coxe, Joseph | Selkirk | 61 | ..... | 12 | 3,395 | 10 | ..... | ..... |
| Cameron, J. A. C. | Edmonton | 7 | ..... | 4 | 5,948 | 9 | ..... | ..... |
| Robertson, A. L. | Prince Albert | 172 | ..... | 37 | 3,598 | 61 | 70 | Homestead Inspector from 30 June to 1 Oct. 1903. |
| White, J. B. | Winnipeg | 88 | ..... | 19 | 7,369 | 90 | ..... | ..... |
| | | 951 | 8 | 107 | 54,320 | 705 | 327 | ..... |
| Compared with year 1903. | ..... | 599 | 6 | 7 | 32,475 | 311 | 222 | ..... |

E. F. STEPHENSON,
Inspector of Agencies.

No. 3.

REPORT OF THE AGENT AT ALAMEDA.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
ALAMEDA, ASSA., Aug. 9, 1904.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to submit the annual report of this office for the year ending June 30, 1904.

There has been a large increase in the work done in this office over any previous year, especially in the number of letters received and written, and while the number of homestead entries granted was not so large as the previous year, this was owing to the fact that the desirable free grants within a radius of 20 miles of railway have been taken up. A great number of applications for cancellation of homestead entries have been filed by intending settlers, with a view of having these lands opened for re-entry or making the homesteader comply with the Act; the result is that the district is being settled by bona fide farmers.

The majority of the settlers who are taking up homesteads in this district are from the United States, many of whom are former Canadians.

The crop prospect for this season is good, and while there will not be so much straw as last year, it is expected that with favourable weather wheat will average 18 to 20 bushels per acre. There is a general air of prosperity throughout the district, and the demand for labour both in the towns and on the farms is greater than the supply.

Appended is a statement of work performed this fiscal year :—

| | |
|---------------------------------|-------------|
| Letters received..... | 18,004 |
| Letters written..... | 14,475 |
| Applications for patent..... | 418 |
| Entries cancelled..... | 1,132 |
| Homestead entries..... | 1,682 |
| Land sales (cash)..... | 21 |
| Land sales (scrip)..... | 6 |
| Land scrip located (acres)..... | 4,040 |
| Timber permits issued..... | 787 |
| Hay permits issued..... | 95 |
| Timber seizures..... | 4 |
| Revenue..... | \$23,982.19 |

Your obedient servant,

R. CLAUD KISBEY,
Agent of Dominion Lands.

4-5 EDWARD VII., A. 1905

No. 4.

REPORT OF THE AGENT AT BATTLEFORD.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
BATTLEFORD, September 8, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I beg to submit the report of this agency for the fiscal year 1903-4.

The volume and nature of the work of this office during the year prove conclusively that this district has at last reached the period of rapid development. By way of comparison it may be stated that during the sixteen years preceding June 30, 1902, the total number of entries at this office was 676; during 1902-3 the number was 1,246, and during the past year, 1,988. These figures include homesteads and pre-emptions together with a few sales of farm lands and lots in the town site of Battleford. The business now being conducted here indicates a still greater proportionate increase during the current year.

Another evidence of the rapid expansion of the district is the fact that during the past two years the Canadian Pacific Railway Company has sold 630,818 acres of land, a large proportion of which has passed directly and indirectly into the hands of actual settlers. These lands were selected by the company many years ago, but there was practically no market for them until recent times.

All kinds of agricultural pursuits have prospered during the year. Last summer's grain crops were harvested in good condition and the yield was unusually large. A sample of wheat grown here last summer was forwarded to the Central Experimental Farm, Ottawa, for analysis. The result of the test was exceedingly satisfactory, 97 per cent having germinated, of which 89 per cent made strong and 8 per cent weak growth. The samples of last year's oats exhibited at this office to large numbers of practical farmers from various distant places were much admired by all.

The harvest prospects this year are good also. Seeding time was later than usual, but the growth was rapid and the crops of grain are maturing fairly early. It is expected that the yield will not be so abundant as that of last year, but the acreage is much greater and the total production is, therefore, no doubt sufficient to meet local demands. As there is still no means of profitable transportation no farm products are intended for export. But in view of the probable completion early next spring of the line of the Canadian Northern Railway, preparations are now being made by the farmers here for more extensive seeding operations next spring. It is expected that there will be 15,000 acres under crop next year, whereas the present area is scarcely 9,000 acres.

Last winter was unusually lengthy and the snow was very deep and some of our ranchers experienced much hardship in consequence. As a rule our ranchers stack hay in various places over the prairie where they cut it, and haul it to the ranche feeding corrals during the winter as required. By this practice time is economized generally, but last winter's deep snow caused such difficulty in the feeding process that the practice will be modified to some extent in future. Some losses occurred through starvation, and the stock generally did not present the usual excellent condition in the spring. On the whole, however, good profits attended the efforts of our ranchers during the year.

SESSIONAL PAPER No. 25

With the advent of the new classes of American and eastern Canadian farmers other branches of agricultural pursuits are engaging more popular attention. Poultry and dairy farming and market gardening are receiving better attention, and it is probable that our settlers will be in a position to export dairy products as soon as the new line of railway will be able to do business in this locality. For many years to come this district will prosper more particularly in the various departments of mixed farming.

The opening up of a large additional tract of territory to the south and west of this place is attracting a large number of home seekers. In fact the various townships recently opened for settlement in all directions from this place are being looked over eagerly by those coming a long distance to get the best land obtainable. Settlements are being formed rapidly everywhere. Post offices are being established and school districts are being organized in localities which until a few years ago were seldom even heard of, and never visited by white men excepting when hunting wild animals.

It is quite impossible to arrive with certainty at the figures representing the influx of population, but from examination of the records of this office and from assistance derived from members of the staff and from various land guides, I have estimated the total increase of population during the year as 4,600, as compared with 3,800 during the previous year. At the present time the population is increasing more rapidly than ever before owing to the fact that many of the new settlers are only now in a position to bring their families to their new homes.

It is gratifying to know that the large body of British colonists who came out in the spring of last year chiefly under the auspices of Rev. I. M. Barr, are succeeding in their efforts. Soon after their arrival there were various complaints made by the large majority of them as to misrepresentation of the conditions prevailing here, and it was feared for a time that the reasons given for complaining against their leader would cause a general feeling of discontent on the part of the colonists which might interfere more or less seriously with their chances of ultimate success as agriculturists. But I am glad to say that no such discontent now exists, and I am convinced that the period of anxiety for the welfare of this large and intelligent and industrious body of immigrants is altogether past. One of the pleasing features in connection with the work of this office is the generous recognition by these people of the efforts made by the department and its officials to advance their material interests.

The following figures represent the work done at this office during the year:—

| | |
|-----------------------------------|--------|
| Letters received. | 5,185 |
| Letters written. | 4,062 |
| Duplicates and circulars. | 1,787 |
| Homestead entries. | 1,774 |
| Cancellations. | 314 |
| Applications for patent. | 4 |
| Land scrip located. acres | 14,640 |
| Hay permits issued. | 37 |
| Timber permits issued. | 72 |

The total revenue of the office for the year was \$17,789.11, and the total expenditure, including salaries, was \$1,902.45.

Your obedient servant,

R. F. CHISHOLM,

Agent of Dominion Lands.

4-5 EDWARD VII., A. 1905

No. 5.

REPORT OF THE AGENT AT BRANDON.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
BRANDON, MAN., August 15, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I beg to inclose herewith the Dominion Lands annual report for year ending June 30 last.

The prospects have never been brighter; the early spring allowed a very large area of crop to be put in, and the favourable weather since is producing one of the largest crops ever harvested. The harvest is a few days later than usual, owing to the cool weather, but it is now ripening rapidly and will be ready to reap in first-class condition within the next few days.

The demand for land steadily increases, homesteaders buying adjoining quarters of odd numbered sections when they are available. The number of homestead entries granted in this agency is not as large as last year. This is owing to the fact that the lands available for this purpose have all been taken up, not to the want of applicants. The applications for cancellation of entries are even larger than the previous year, which shows the anxiety of all incoming settlers to obtain homesteads in as central locality as possible, and have all the lands settled and under cultivation by bona fide farmers, not mere speculators.

Each year the immigration increases, and the parties arriving are of a better class, more fitted for the part they have to fill in building up a new country. A larger number have enough capital to give them a fair start in their farming operation, and the good mechanic has no difficulty in obtaining work at a high wage. The men coming out to do farm work have had no difficulty in getting placed with good farmers, and there have been no complaints from employers or employees, showing the men coming in are more capable than formerly.

The following is a statement of the work performed during the past year:—

| | |
|-----------------------------------|--------|
| Homestead entries. | 488 |
| Applications for patents. | 389 |
| Cancellation of entries. | 439 |
| Letters received. | 13,643 |
| Letters sent. | 13,196 |

I am, sir,

Your obedient servant,

L. J. CLEMENT,

Agent of Dominion Lands.

No. 6.

REPORT OF THE AGENT AT CALGARY.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
CALGARY, August 15, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit my report of the work performed in this office during the year ended June 30, 1904. The number of homestead entries, 2,676, exceeds the number granted the previous year by 760.

The revenue from lands amounts to \$41,819.31, exclusive of a very large amount paid at head office on account of sales of lands, coal lands, grazing leases, &c., being a decrease of \$425.60 from the revenue of the previous year, which is due to the withdrawal of all lands from sale by the department.

As the business for the timber and mines branch for this district is also conducted at this office, I may mention that the revenue from this branch amounts to \$10,584.02, which exceeds the amount for the previous year by \$2,270.46. A separate report in connection with the timber and mines branch is being prepared.

The crops were not up to the average on account of there having been too much rain when we should have had ripening weather, but the winter was exceptionally good and stock wintered well on the ranges. This summer has been very favourable and prospects for a good crop in this district were never better, as we have had the necessary heat and moisture.

The cattle and lumbering industries are in a flourishing condition.

Mr. Jas. Winn, caretaker of the immigration hall here, estimates that about 15,000 immigrants landed in Calgary during the fiscal year, and that the majority of these have settled in the Calgary district.

The settlers throughout Alberta appear to be doing well and are perfectly satisfied and contented. The city of Calgary, which has now a population of about 10,000, has doubled its population in the last four years. Other towns throughout the district have been going ahead rapidly.

I append hereto a detailed statement of receipts on account of Dominion lands.

Attached hereto also find a statement of work performed at this office.

I am, sir,

Your obedient servant,

J. R. SUTHERLAND,

Agent of Dominion Lands.

CALGARY DOMINION LANDS AGENCY.

Statement of receipts on account of Dominion lands for the year ending June 30, 1904.

| | |
|---------------------------------------|-------------|
| 2,676 Homestead entries. | \$26,455 00 |
| 51 Payments on improvements. | 1,456 66 |
| 106 Land sales. | 13,696 00 |
| 9 Seed grain collections. | 202 65 |
| 9 Half-breed scrip locations. | |
| 9 Sundry sales. | 9 00 |
| | <hr/> |
| | \$41,819 31 |

4-5 EDWARD VII., A. 1905

| | |
|---------------------------------------|--------|
| Letters received..... | 23,571 |
| Letters written..... | 14,550 |
| Applications for patent received..... | 298 |
| Entries cancelled..... | 673 |

CALGARY OFFICE.

Statement of work performed for the year ending June 30, 1904 :—

| | |
|--|--------|
| Letters received..... | 23,571 |
| Letters written..... | 11,550 |
| Applications for patent..... | 298 |
| Entries cancelled..... | 673 |
| Homestead entries granted..... | 2,676 |
| Land sales..... | 106 |
| Half-breed scrip locations..... | 9 |
| Ground rent collections..... | 14 |
| Royalty on sales..... | 27 |
| Timber permits issued..... | 715 |
| Timber seizures..... | 20 |
| Hay permits issued..... | 97 |
| Grazing rent collections..... | 107 |
| Transactions <i>re</i> permits to mine coal..... | 43 |
| Transactions <i>re</i> coal lands fees..... | 8 |
| Seed grain collections..... | 9 |

No. 7..

REPORT OF THE AGENT AT DAUPHIN.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,

DAUPHIN, MAN., June 30, 1904.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to submit the following report on the Dauphin land district for the year ending this day.

I am pleased to be able once more to report that the prosperity of the district, as a whole, is marked, and that indications point to a repetition of last season's good harvest, though some rain would be of great benefit at present; still, crops are not as yet suffering on this score.

The yield of last season was heavy, grades fair, and as high prices prevailed, the settlers had much to be thankful for; it is estimated that not less than 800,000 bushels of wheat were shipped out of the district.

Very large addition has been made to the areas under cultivation, and breaking for next year's crops is being carried on in all parts; conditions during harvest being favourable, the output should be largely in excess of former years.

The coarser grains have, as in the past, been grown only for local consumption, and in fact, not in sufficient quantities to meet demands, as oats in considerable quantities have had to be imported for use on railway construction and in the lumber camps.

SESSIONAL PAPER No. 25

More attention is being paid to stock, and the importation of some first-class animals should improve the breeds in both horses and cattle, but few sheep are kept, the scrub and bush lands not offering favourable range for them, and pigs have not that attention shown to them that the demand would justify, as considerable quantities of both fresh and cured pork are being constantly brought into the district; in fact, I may say that this applies to all produce other than wheat.

Stock wintered well, there having been a fair quantity of feed, though hay brought higher prices than ever before.

The various municipalities have done much in improving roads, bridges and grades having been built and ditches dug, so far as the money at command warranted. Still, much remains to be done, as the high water of last year and this spring, having taken out several bridges, new ones had to be built, thus in a measure curtailing new work that should have had attention.

Many schools and some churches have been erected, where conditions called for same, and more are being taken in hand.

Lumbering operations, both by the limit holders and small portable mills operating on permits, were carried on to a greater extent than in former years, many settlers from great distances having taken advantage of the cheap rates under dues to secure timber from the Riding and Duck mountains; still the heavy fall of snow in a measure curtailed the work during the early spring. I am not in a position to quote figures as to the output, but there is no question that it was largely in excess of anything in the past. Our officers have had but little trouble in keeping check on these operations, but few seizures having had to be made, though there is room for greater economy in the manufacture in the cases of the small mill men and settlers, as these having no vested interests in the timber often take only a part of felled trees, though the conditions under which permits are granted call for all of the trees cut being used. This grievance our inspectors and rangers cannot combat, the territory over which operations are conducted being too large to enable any close check to be kept on individual cases, and I much fear that unless more stringent regulations are enforced the supply of timber suitable for manufacture, other than that on the limits, will ere long be exhausted. The limit holders, I am glad to say, exercise all possible care both in cutting and manufacturing their timber.

Fires have fortunately done little damage, the weather was favourable, and the rangers did good work in suppressing any that were started.

Most of our bush fires originate where settlers, burning off the scrub on their holdings, permit them to get beyond control.

The number of homestead entries has fallen off somewhat, due in a great measure to shortage of available lands suitable, and I would urge on the department the necessity of having further survey made of any lands that it may be decided are of the class suitable for settlement at an early date and placed on the market without delay, as at present there is but little land left in the district to which to direct settlement. A number of squatters have notified the office of their holdings, but these have not been given any encouragement, but advised to select lands on which entry could at once be made in the proper way.

In spite of the shrinkage in homestead entries, I believe quite as many people came into the district as in former years, as many sales have been recorded, high prices having in many instances obtained.

A general feeling of prosperity prevails; many of the older settlers have improved their buildings and paid more attention to the home surroundings.

I have not met with any cases of destitution, nor have any people asked for relief. Good wages have prevailed, owing to the brisk demand for men on railway construction and in the lumber camps.

The general health of the district has been good. The hospitals at this point and Swan River were able to attend to all patients seeking treatment, and great credit is due to the managements of these institutions.

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I attach a statement of some branches of work put through the office during the year.

Your obedient servant,

F. K. HERCHMER,

Agent of Dominion Lands.

Memorandum of certain branches of work carried through the Dauphin Land office during the year ending June 30, 1904:—

| | |
|--|-------|
| Homestead entries granted. | 379 |
| Timber permits issued. | 1,348 |
| Hay permits issued. | 84 |
| Letters received. | 6,691 |
| Letters written. | 4,822 |
| Applications for patent taken. | 407 |
| Entries cancelled. | 136 |

F. K. HERCHMER,

A. D. L.

No. 8.

REPORT OF THE AGENT AT EDMONTON.

DEPARTMENT OF INTERIOR,

DOMINION LANDS OFFICE,

EDMONTON, ALBERTA, July 4, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit the annual report of this office for the year ending June 30, 1904.

The prosperity reported last year still continues. The crop outlook is excellent, and there has been a uniform increase in settlement in all directions.

The large majority of this year's immigrants were Canadians, English and Americans and were of a very high class.

Settlement extends 100 miles east, and has this year overflowed into the Battleford district from this district. Many settlers have gone down by the river, which is an easy and pleasant trip in fine weather.

Settlement also extends 65 miles north-west, in which direction a large number of English settlers have gone and are doing well.

The weather has been good, both for seeding and for growth. Owing to the lack of good seed the acreage under crop will be about the same as last year.

The office work is still on the increase, especially in the timber and mines branch. There are now some 62 timber berths, and coal areas are being purchased in all directions. The applications for patents, which are very numerous, take a great deal of time, also the portable saw-mill returns, there being some 55 operating in the Edmonton district.

Coal areas are being taken up north and west of Edmonton, also some prospecting for petroleum is being done.

SESSIONAL PAPER No. 25

The Peace river district would fill up rapidly with settlers if opened up, and most favourable reports are received concerning same. Very many inquiries are received regarding the Peace river district, but intending settlers are advised to locate nearer civilization at present.

HOMESTEAD ENTRIES AND REVENUE.

| 1901-1902. | | 1902-1903. | | 1903-1904. | |
|------------|-------------|------------|-------------|------------|-------------|
| Ent. | Revenue. | Ent. | Revenue. | Ent. | Revenue. |
| 2,144... | \$35,433.11 | 3,183... | \$47,436.90 | 2,584... | \$41,816.38 |

SUMMARY OF ACTUAL BUSINESS DONE.

| | |
|--------------------------------|-------------|
| Letters received... | 16,547 |
| Letters sent... | 14,267 |
| Applications for patent... | 804 |
| Homestead entries cancelled... | 1,075 |
| Hay permits issued... | 26 |
| Timber permits issued... | 1,417 |
| Homestead entries granted... | 2,584 |
| Land scrips located... | 131 |
| Revenue... | \$41,816.38 |

Your obedient servant,

A. G. HARRISON,

Agent of Dominion Lands.

No. 9.

REPORT OF THE AGENT AT KAMLOOPS.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

KAMLOOPS, B.C., July 4, 1904.

The Commissioner of Dominion Lands,

Ottawa.

SIR,—I have the honour to submit the annual report of this office for the year ending June 30, 1904.

There has been a healthy increase in all departments. Homestead entries, though the aggregate is not large, have increased 98 per cent. The increase in revenue from grazing leases has been 32½ per cent. The revenue derived from land sales has almost been stationary, but the difference is a slight increase. That from all sources aggregates \$19,493.95, and the increase over last year \$3,087.04.

Farmers have done well during the year. Those that had wheat for sale realized from 60 to 75 cents per bushel. The price for beef cattle was low in the fall, and many were left unsold in consequence. The farmers that were fortunate to have them fit for the butcher in the spring got good prices and made handsome profits on the cost of winter feeding.

The winter, though not cold, was long, and by spring many stockmen had to purchase feed. A few head here and there were lost for want of feed and attention, but on the whole, stock came through in fair shape, and as the long winter was succeeded

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by a good spring and summer, they soon put on flesh, and to-day look none the worse for the pinch.

There have been several applications for land in connection with irrigation schemes. It is found that water is not to be had for that purpose within reasonable distance, and the time when an individual can put in an irrigation system of his own is almost past. It can only be done by co-operation or by companies. A company that acquired the most of the land on the west side of the North Thompson river and on the north side of the South Thompson, near Kamloops, finished their canal last autumn. The floods this spring did great damage to their works, and they have lost this season's crop in consequence.

One of the mines in the vicinity has been quite active during the year. It has now passed through the experimental stage, and preparations are being made to turn it into a shipper. Heavy machinery is being installed and a concentrator is being built.

A few individuals have formed a company for the purpose of prospecting for coal. Geologists have given it as their opinion that coal measures underlie the surface not far from Kamloops. There are some surface indications and some desultory work has been done in the past and some coal has been brought to the surface. The present company have arranged to sink a shaft to a depth of 500 feet, and if successful will then instal a diamond drill, and in that manner prospect the surrounding country.

The following is a statement of the work done :—

| | |
|---|-------|
| Letters received. | 3,281 |
| Letters written. | 3,304 |
| Applications for patent received. | 43 |
| Entries cancelled. | 33 |
| Homestead entries granted. | 180 |
| Land sales. | 31 |
| Acres sold. | 3,902 |

Your obedient servant,

JAMES BANNERMAN,

Agent of Dominion Lands.

No. 10.

REPORT OF THE AGENT AT LETHBRIDGE.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,

LETHBRIDGE, ALTA., August 8, 1904.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to submit the annual report of this office for the year ending June 30, 1904.

Although the office work for the year ending June 30, 1903, was considered extra heavy compared with that of previous years, I am pleased to relate that for the fiscal year just closed it has been much greater than for the year preceding. The continuous stream of settlers pouring into this office, desiring information and procuring homesteads, has been marvellous, and shows clearly that not only is southern Alberta admirably adapted for stock-raising, but it is considered very suitable for mixed farming.

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The revenue for the year just closed is not quite as heavy as for the preceding year, which is accounted for by the number of coal land sales made during the year closing June 30, 1903, there being about one hundred more sales completed during that period than during the present year. Am satisfied that had a small portion of the moneys paid direct to the department this year on account of grazing leases in this district passed through this office the revenue would have been much larger than for any previous period.

A large number of homesteaders have already filed applications to purchase Dominion government lands when they are again thrown open for sale, and land companies are continually selling farms to actual settlers, which tends to show that settlers have great faith in this part of the country.

On account of all revenue from timber berths in southern Alberta passing through the Calgary agency, the showing in the timber branch in this office is necessarily much smaller than it would be were the royalties, ground rents, &c., on timber in this district paid through this agency.

Applications for coal lands throughout this part of Alberta are being received in large numbers, and there is little doubt that in the near future the revenue received from this source by the department will be very great, and that this will be one of the largest coal producing districts in the Dominion.

Petroleum lands are being applied for along the Crow's Nest, while lime-burning there is constantly carried on.

The regulations under which grazing leases were granted having for the present been withdrawn, not many leases were granted during the latter part of the closed fiscal year, but from the number of applications for leases received it is very evident that this branch of the work will be greatly increased when the regulations are again enforced.

The sub-agents and other officers throughout this district have been very busy, and deserve credit for the manner in which they perform their departmental duties.

The staff has worked faithfully, and is deserving of favourable mention.

Following is a partial list of the work performed during the past year:—

| | |
|---|--------|
| Letters received. | 13,622 |
| Letters sent. | 8,977 |
| Homestead entries granted. | 1,731 |
| Homestead entries cancelled. | 417 |
| General sales. | 189 |
| Hay permits issued. | 80 |
| Timber permits issued. | 300 |
| Timber seizures. | 8 |
| Applications for patent received. | 230 |

Your obedient servant,

J. W. MARTIN,

Agent of Dominion Lands.

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No. 11.

REPORT OF THE AGENT AT MINNEDOSA.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
MINNEDOSA, July 4, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—In my report of the work performed in this office during the year ending the 30th ulto submitted herewith, it will be observed that the number of homestead entries granted is less than the number granted in any recent year. This was not owing to the lack of demand, but because the demand could not be met, the number of desirable quarter sections in this district open to original entry being nearly exhausted. Numerous intending settlers who called at the office on learning this decided to go west, where they could find larger areas of government land from which to select homesteads.

In addition to those calling at the office seeking farms, each mail brings letters of inquiry for available lands, indicating that the desire to obtain homes in Manitoba is on the increase. Besides this several of our successful settlers who last season wrote letters intended for publication, giving their experience in Manitoba and the measure of success achieved by them, have since said letters were published and distributed received numerous letters asking further particulars; indeed one of the writers complained of the large correspondence he has had in this connection.

I add that part of this district is within the permanent timber reserve, and failing to obtain homesteads numbers have squatted on the lands within said reserve, hoping hereafter that they would be granted homestead entries for the lands occupied by them, so that although the number of homestead entries granted in the district is less than usual the number of settlers is probably larger. The extraordinary demand for land is also shown by the number of farms sold at rapidly increasing prices.

The last winter was of unusual length, with a heavy snowfall, and in the spring serious floods were experienced which in some cases prevented or delayed seeding operations, but notwithstanding this, the area of land sown in crop is in excess of the area sown last year, and although the season is later than usual, the crops are well advanced and the promise of an abundant harvest is excellent.

| | |
|---|-------|
| Homestead entries granted. | 271 |
| Letters received. | 5,343 |
| Letters sent. | 4,308 |
| Applications for patent received. | 167 |
| Entries cancelled. | 77 |
| Timber permits issued. | 443 |
| Hay permits issued. | 136 |

Your obedient servant,

JOHN FLESHER,
Agent of Dominion Lands.

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No. 12.

REPORT OF THE AGENT AT NEW WESTMINSTER.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

NEW WESTMINSTER, B.C., July 7, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—In accordance with the standing instruction, I beg to submit my report for the year ended June 30, 1904.

To state the case briefly as to scope and character of the duties, I may say that not many new elements enter into the work beyond what I mentioned in last year's report. Although intensely interested during more than twenty years in promoting the settlement of the lands, the adjustment of titles and supplying information verbally and in writing in respect of the railway belt in British Columbia in general—and smaller parts in particular—there are new problems ever to be solved demanding patience, time and close attention.

I am glad to report very satisfactory progress in the development of the district. The best portions receive concentrated action on the part of buyers, who desire small tracts.

The dairying industry is gradually extending as lands are being cleared.

Fruit canneries are being built and operated to prevent the waste which usually takes place when there is a glut in the local market.

The New Westminster steel bridge, costing about a million dollars, is to be opened for railway and wagon traffic in the course of a few weeks.

This will stimulate business in the country south of the Fraser river, giving ready access to New Westminster and Vancouver cities.

A summary of the monthly schedules sent to the inspector of agencies, copies of which were forwarded to your office, shows:—

| | |
|---|------------|
| Letters received. | 1,890 |
| Letters sent, beside circulars. | 1,548 |
| Homestead entries. | 27 |
| Total receipts. | \$8,418.50 |
| Total contingent expenditure. | \$198.65 |

But after all the actual time occupied in matters thus represented is only a portion of the labour and attention necessary in doing satisfactory work in this western and interesting field.

Respectfully submitted,

JOHN MCKENZIE,

Agent of Dominion Lands.

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No. 13.

REPORT OF THE AGENT AT PRINCE ALBERT.

DEPARTMENT OF THE INTERIOR,
 DOMINION LANDS OFFICE,
 PRINCE ALBERT, June 30, 1904.

The Commissioner of Dominion Lands,
 Ottawa, Ont.

SIR,—I have the honour to submit the report of this agency for the fiscal year ending to-day.

Great and unusual difficulties affecting the branch line of railroad serving this district have made this season much less favourable to immigration than was fully expected. Largely from this cause the homestead entries have not reached the high-water mark of last year, and there is a consequent falling off in the total revenue. I would note, however, that in spite of all difficulties the homestead entries are more than a half greater than those of two years ago, being 1,636, as against 1,009 for that year, and the same steady and gratifying increase is seen in total revenue, which is this year \$36,304.68, as against \$23,958.81 two years ago.

The British immigration has been marked during the past year, and several large parties of a very superior class have been distributed throughout the district. There is also a considerable French settlement being made east from Duck lake, while the Norwegian settlement at Glen Mary and the German Catholic settlement on the Hoodoo plains are being steadily increased by incomers from the United States.

The present crop outlook is the best seen here for many years, and if realized it will not only put new settlers on their feet but should stimulate increased settlement next year under, I hope, more favourable transportation conditions than were experienced this year.

I am glad to note that the Canadian Northern Railway has now entered the district. Its progress continues to be watched with the greatest interest, and is of the utmost moment to all. The increase of railway facilities is the great present and pressing need for the development and progress of this district.

In the following statement of the work of the year, the increase of the correspondence will be noted, as well as the marked increase of cancellations, which are more than double those of last year.

| | |
|---------------------------------------|-------|
| Letters received..... | 8,472 |
| Letters sent..... | 6,937 |
| Homestead entries granted..... | 1,636 |
| Homestead entries cancelled..... | 660 |
| Hay permits issued..... | 47 |
| Timber permits issued..... | 1,262 |
| Applications for patent received..... | 272 |

Your obedient servant,

J. W. HANNON,

Agent of Dominion Lands.

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No. 14.

REPORT OF THE AGENT AT RED DEER.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

RED DEER, ALBERTA, August 1, 1904.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I beg to submit herewith my annual report for the fiscal year ending June 30, 1904.

Whilst the number of homestead entries granted during the year is not quite so large, and the revenue is somewhat less than last year, the business is largely in excess of any year prior to 1902 and 1903, and the progress made throughout the district eminently satisfactory.

Last fall was an ideal season for farming operations, day after day and week after week, furnishing the beautiful bright and balmy weather for which Alberta is so justly famous, and a bountiful harvest was taken off in good shape. It was also an excellent season for securing hay, large quantities of which were put up. There was comparatively little winter weather, and no snow until about February 8. From then on until March 26 it was uniformly cold, but the snow was not deep, and there was a total absence of storms, with which all other parts of the continent appear to have been visited, so, comparatively speaking, we had a very fine winter. There was no loss of cattle whatever where ordinary precaution was taken and they received the necessary care and attention which should be given to unhoused cattle. I am informed that some persons who imported a large number of Texas cattle into the eastern portion of the district, as an experiment, and did not provide any food for their maintenance, met with considerable losses, as they might well expect to do, and I think steps should be taken to prevent similar experiments in future, to say nothing of the cruelty in wilfully allowing cattle to starve, where an ample supply of excellent hay to feed them could easily be put up. The fact of allowing them to starve in large numbers must have a bad effect and tend to give the country a reputation which it does not in any way deserve. It is not claimed that this is a ranching, but rather a mixed farming district; however, there is no part of the North-west where cattle, with proper care, do better, or where raising them can be made more profitable, but they must be run in small bands, and receive ordinary care and attention.

Two more creameries have been added to the number in this district during the past season, one at Markerville and one at Pine Lake, making the total number seven, and they are giving entire satisfaction to their patrons.

Last spring was, on the whole, cool, and although grain was sown fairly early, the growth was not rapid; however, the summer has been very fine and the crops have matured nicely. The yield in this district will be above the average, and a much larger area has been sown to crop. Some farmers, however, through carelessness or ignorance, used inferior seed, and as a consequence, will have poor crops. Many, however, on discovering their mistake, ploughed up the land and re-seeded it. It is to be hoped that this experience will be a lesson, not only to those who suffer as a consequence of their carelessness, but to all others, as the matter is clearly within the control of the farmers themselves.

It would appear that we have arrived at an end of our wet seasons, as so far this summer has been dry, not more rain having fallen than was required; as a consequence the roads are in a better condition than they have been for at least four years past.

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The towns along the Calgary and Edmonton Railway are keeping pace with the growth of the country.

Red Deer has made substantial and satisfactory progress during the past year. The court-house and Dominion lands office, now in course of construction, promises to be a handsome and substantial building, and will be completed in October or November next. The Red Deer Memorial Hospital, which cost \$12,000, was opened to the public in the spring, and has already proved a great blessing to the community at large. The two brickyards have constantly been running to their full capacity, finding ready sale for all the brick they can manufacture. The quarries have been shipping large quantities of excellent building stone, and the two saw mills have been turning out large quantities of lumber, which is disposed of as soon as cut. A long distance telephone service, connecting Red Deer with Calgary on the south and Edmonton on the north has been established and found to be a great convenience. A most important industry, known as the 'Blind-man River Electric Power Company,' is now in course of construction, at the junction of the Blind-man with the Red Deer River, the object of the company being to furnish electric motive power at reasonable rates to such industries as may be established in the towns of Red Deer, Blackfalds and Lacombe. The cost of construction will be in the neighbourhood of \$25,000. An up-to-date electric plant is now being established for supplying the town with lighting, and is expected to be in operation in October.

The following is a statement of business transacted in this office for the year ending June 30, 1904:—

| | Number. | Amount. |
|---|---------|-------------|
| Homestead entries.. . . . | 1,234 | \$12,295 00 |
| Improvements.. . . . | 70 | 1,658 00 |
| Land sales.. . . . | 14 | 1,680 55 |
| Sundries.. . . . | 2 | 20 00 |
| Timber permits.. . . . | 895 | 954 28 |
| Hay permits.. . . . | 80 | 174 60 |
| Timber seizures.. . . . | 10 | 389 20 |
| Grazing rents.. . . . | 8 | 68 96 |
| Coal land fees.. . . . | 22 | 129 50 |
| Seed grain collections.. . . . | 5 | 73 59 |
| Sundries.. . . . | | 1 21 |
| Revenue of sale of Indian lands.. . . . | | 6,042 34 |
| Total.. . . . | | \$23,487 24 |
| Letters received.. . . . | | 11,871 |
| Letters written.. . . . | | 5,946 |
| Entries cancelled.. . . . | | 490 |
| Applications for patent.. . . . | | 330 |

I am, sir,

Your obedient servant,

W. H. COTTINGHAM,

Agent of Dominion Lands.

No. 15.

REPORT OF THE AGENT AT REGINA.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
REGINA, ASSA., August 12, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit my report for the year ending June 30, 1904, statement of work performed being as follows:—

| | |
|---------------------------------------|-------------|
| Letters received | 39,699 |
| Letters written | 30,384 |
| Homestead entries granted | 6,622 |
| Land scrip located (acres) | 12,821 |
| Timber permits issued | 591 |
| Hay permits issued | 189 |
| Grazing rents | 20 |
| Seed grain collections | 112 |
| Applications for patent | 603 |
| Entries cancelled | 1,911 |
| Total revenue of the office | \$86,872.87 |

The work done in this office during the past year has been greater than during any previous year, and the staff have been kept very busy trying to cope with it. The applications to cancel unoccupied homesteads from those desiring to make entry, as well as the applications for patents from those who have complied with the requirements, are increasing to such an extent that the homestead inspectors and the office staff feel they would like to be in a position to attend to them more promptly.

The work done at the various sub-agencies in connection with this office has been great, and credit is due to the sub-agents for the efficient manner in which it has been performed.

The settlers in this district are progressive, and should conditions continue favourable until after harvest, those who have been here long enough to have in considerable crop are looking forward to reaping very satisfactory returns.

Your obedient servant,

D. S. McCANNELL,
Agent of Dominion Lands.

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No. 16.

REPORT OF THE AGENT AT WINNIPEG.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
WINNIPEG, August 30, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit for your consideration my annual report for the fiscal year ending June 30, 1904.

Having gone fully into the comparative figures of receipts and expenditure in my report as inspector of agencies, it is unnecessary to refer to them in detail here. The prosperity and commercial activity referred to in my last annual report as being so much in evidence in Manitoba have continued and increased during the past year to a marked degree. While doubtless you are fully aware that such conditions prevail, it might be found of interest to give the following particulars showing the advancement under different headings:—

According to provincial government returns, the following figures are given, indicating the result of the grain crop in the province for the year 1903:—

| | Acreage. | Total Product. |
|-------------|-----------|----------------|
| | | Bush. |
| Wheat..... | 2,442,873 | 40,116,878 |
| Oats..... | 855,431 | 30,035,774 |
| Barley..... | 326,537 | 8,707,252 |
| Flax..... | 55,900 | 586,950 |
| Total..... | 3,680,741 | 79,446,854 |

The figures for this year cannot as yet be ascertained, the crops only being in the process of harvesting.

From the best obtainable information, it is conservatively estimated that the wheat crop of this year will be larger than that of last, while oats and barley will show a decided increase.

The report for 1903 of the Winnipeg clearing house shows the total clearings for the year to be \$246,108,006. For the first six months in 1903 the amount reached \$107,109,740. For the same months in this year the sum was \$124,855,147, an increase of \$17,745,407.

Building operations are being carried on extensively in all parts of the province. The amount being expended is greatly in excess of that of last year. This will be better understood by referring to my report of the operations of the timber branch, which shows a large increase in the sales of lumber. Through the courtesy of the city engineer I am enabled to give you a comparative statement with last year of the amount expended in Winnipeg in building operations.

| | |
|-----------------------------|-------------|
| During year 1903..... | \$5,689,400 |
| Year 1904 to August 30..... | 7,320,250 |

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The extraordinary increase is due in a measure to the improvements being carried out by the Canadian Pacific Railway Company in the building of extensive car and machine shops, hotel, &c., in which an estimated outlay of between \$2,000,000 and \$3,000,000 will be made.

Suburban tramways have been completed, one from Winnipeg to West Selkirk, twenty-three miles, and one to St. Charles, upwards of six miles. Many sections of the province hitherto unprovided with railway facilities have had this want supplied during the year, as will be seen by the following list of railway branch lines under construction, or completed, by the Canadian Northern Railway Company, viz:—

| | Miles. |
|---|--------|
| Greenway branch from Greenway to Wakopa | 52 |
| Carberry branch from Humerston to Carberry | 20 |
| Arizona branch from Portage la Prairie to Carberry | 52 |
| Rosburn branch from Neepawa to Rosburn | 79 |
| Thunder Hill branch, Swan River to Provincial boundary | 20 |
| Oak Point branch, Winnipeg to Oak Point | 54 |
| Springfield branch, St. Boniface to Bird's Hill | 9 |
| Main line addition, Grand View to Provincial boundary | 48 |

The entry of the Grand Trunk Pacific into the district of Keewatin and the province of Manitoba will open up a vast territory lying north of the English and Winnipeg rivers, rich in agricultural land, mineral and timber, which has not as yet been taken possession of.

The trend of settlement during the year in this district has been north and east, between lakes Winnipeg and Manitoba, and east of the Red river, and south of the main line of the Canadian Northern Railway.

The completion of the branch line of the Canadian Northern Railway from Winnipeg to Oak Point on Lake Manitoba affords the settlers east of the lake an easy facility to market, and it is expected as an outcome that from this onward more rapid development in the district will take place.

To the north of Teulon, the terminus of the Teulon branch of the Canadian Pacific Railway, settlement extends for a distance of thirty miles. It would be of great advantage to this part of the country to have the railway line extended northward to the Icelandic river, to which point unbroken settlement from Teulon extends. The progress made by the settlers has necessarily been slow owing to the nature of the district, which is generally timbered, and abounding in hay meadows and marshes. The soil is wonderfully productive, as has been demonstrated by the large return received from all kinds of crop.

In the newly settled portion of the south-eastern and eastern portions of my district steady advancement is being made, the lands being held chiefly by Germans and Swedes from the states of northern Minnesota and Dakota.

The number of homestead entries granted in this agency during the departmental year was 871, which is a falling off of 191 compared with those for the previous year. There is also a falling off in the revenue collected of \$25,723.93, the total receipts for the year being \$26,389.24 as against \$52,113.17 for 1902-3. The general routine work in the office shows no falling off, however. The correspondence was heavier while the intelligence branch of the work at the counter was much greater, necessitating the services of two clerks much of the time.

The personnel of the office staff has been much affected during the year by death, accident, sickness and removal.

Mr. T. W. Fisher, who filled for upwards of twenty years the position of accountant in the office, met his death by accident. This gentleman proved himself a courteous, painstaking and most efficient officer, and his untimely death was deplored by the staff. Mr. A. Freeman met with a very serious accident, which incapacitated him for work for several months, and he has not yet resumed work. Mr. Pacaud and Mrs. Street

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have each been absent several months on account of sickness. Mr. Martin was removed to the Lethbridge agency as agent. The accessions to the staff are Mr. McTaggart from Yorkton agency, Mr. Matheson from Regina, and two temporary clerks.

Owing to the large increase in my work as inspector, brought about by the system of checking of returns of business transacted by the sub-agents, homestead inspectors and forest rangers, and on the expenditure incurred at the outside offices and by traveling officials, I have been compelled to utilize the services of Mr. Matheson. When not employed at this work he assists in the general work of the office.

Respectfully submitted,

E. F. STEPHENSON,
Agent of Dominion Lands.

No. 17.

REPORT OF THE AGENT AT YORKTON.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,

YORKTON, July 28, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I beg to submit for your consideration the annual report of work transacted at this office for the year ending the 30th ultimo.

The number of entries granted for the last year decreased to the extent of 1,703, which does not indicate, as might be supposed, any falling away in the number of actual settlers arriving at this point, as last year 1,713 entries of Doukhobors were recorded, who had been in the country for a couple of years.

The advent of the Canadian Northern Railway, extending from Kamsack, close to the boundary of Manitoba, westward clear across the agency, has rendered accessible large tracts of excellent agricultural lands north of Fort Pelly, the Assiniboine and Nut Mountain, whilst to the south of the Quill Lakes, the expectancy that this tract will be traversed by a branch of the Canadian Pacific Railway, or the main line of the projected Grand Trunk Pacific Railway, has caused a large settlement to locate there. The extension of the north-western branch of the Canadian Pacific from Yorkton to Sheho has filled every available quarter-section in the vicinity of the last-named town.

The number of applications for cancellation has been unprecedentedly large, showing that if homesteaders are not prepared to carry out the requirements of the law there are others who will. Needless to say, these cancellations affect lands close to railways, being closely watched by settlers with regard to the performance of homestead duties.

The correspondence has rapidly accumulated, so much so that last year more file accommodation was provided to double the extent of what had sufficed for the previous years of the existence of the office. This is now found inadequate, and still further accommodation will be required.

The number of hay permits issued on Dominion lands is fast diminishing, the natural effect of lands being homesteaded and meadows being mostly covered with water. The number of hay permits covering school lands has increased. With the forthcoming sale of these lands, the permits issued will also become fewer.

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A noteworthy feature of the year is the repayment of provision liens by Galicians, advanced in 1898, the amount repaid being \$697.31.

The class of settlers arriving has been of exceptional character, chiefly from the United Kingdom, Ontario and the states of Minnesota and North Dakota.

The sale of land has not been brisk, yet sufficiently encouraging, buyers being farmers. Crop prospects are encouraging and the condition of the various settlements is one of progress and thrift.

Appended herewith is a summary of the work of the year:—

| | |
|--|-------------|
| Homestead entries | 4,090 |
| Half-breed scrip located (acres) | 18,650'48 |
| Timber permits issued | 411 |
| Hay permits, Dominion lands | 34 |
| Hay permits, school lands | 66 |
| Letters received | 14,199 |
| Letters written | 12,069 |
| Applications for patent | 343 |
| Entries cancelled | 1,011 |
| Revenue | \$53,639.68 |

Your obedient servant,

JAS. E. PEAKER,

Agent of Dominion Lands.

No. 18.

REPORT ON TIMBER, MINERAL, GRAZING AND IRRIGATION.

DEPARTMENT OF THE INTERIOR,

OTTAWA, September 29, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit the twenty-fourth annual report of the Timber and Mines Branch of the Department of the Interior.

The revenue derived from timber, grazing, hay, irrigation and mineral on Dominion lands for the fiscal year which ended June 30 last, amounted to \$927,915.93.

Statement lettered 'A,' showing how this amount was made up, will be found at the end of this report.

The total revenue received from July 1, 1872, to July 1, 1904, was \$9,456,926.45.

Reports received from the Crown timber agents at Winnipeg, Edmonton, Calgary, Prince Albert and New Westminster, showing the revenue collected on Dominion lands within their respective agencies and other information, are appended hereto.

The total revenue of the Winnipeg agency for the fiscal year 1903-1904 was \$134,375.56.

The price of lumber within the Winnipeg agency was from \$11.25 to \$18.30 per thousand feet B.M. There are twenty-five mills in operation within the agency, cutting timber under government license.

The revenue received from the British Columbia agency during the fiscal year 1903-1904 was \$98,700.62.

Lumber sold at the average price of \$5 to \$15.30 per thousand feet B.M.

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There are thirty-three mills within the agency operating under license from the Dominion government.

The total amount of dues collected within the Calgary agency during the fiscal year 1903-1904 amounted to \$31,495.46.

The price of lumber at Calgary was \$10 to \$20.90 per thousand feet B.M.

Thirteen saw-mills were operating within the agency last year under government license.

The total amount of dues collected within the Edmonton agency during the fiscal year amounted to \$42,940.

The price of lumber during the year was \$12 to \$16 per thousand feet B.M.

There are fifteen saw-mills in operation within this agency.

The total amount of dues collected within the Prince Albert agency during the year amounted to \$39,055.34.

Lumber sold at Prince Albert at \$16 to \$20 per thousand feet B.M.

There are four saw-mills in this agency cutting timber under license.

The total amount of dues collected within the Yukon Territory on account of timber dues during the fiscal year was \$38,807.90.

There are eight saw-mills in this agency cutting timber under license.

Saw-mill returns received at this department give the following quantities of building materials as having been manufactured and sold during the year within the above mentioned agencies:—

| | Manufactured. | Sold. |
|--------------------------------|---------------|------------|
| Sawn lumber. | 94,704,388 | 82,049,782 |
| Shingles. | 1,994,033 | 1,884,233 |
| Shingle bolts (cords). | 6,395 | 7,347 |
| Laths. | 1,997,883 | 1,446,450 |

The quantity of lumber manufactured and sold within each agency will be found in the agents' reports appended hereto.

Six hundred and fifty-eight licenses were prepared. The areas in the province of Manitoba, the four provisional territorial districts, on Dominion lands in the province of British Columbia and in the Yukon Territory in force on July 1, 1904, are as follows:—

| | Square miles. |
|---------------------------|---------------|
| Manitoba. | 1,189.83 |
| Alberta. | 1,757.81 |
| Assiniboia. | 44.24 |
| Saskatchewan. | 3,135.59 |
| British Columbia. | 1,547.58 |
| Yukon Territory. | 275.11 |

The number of applications received during the year to cut timber was 339; the number of berths granted was 143.

Within the past year thirteen berths were cancelled or relinquished by the owners thereof.

The number of berths under license or authorized to be licensed in the province of Manitoba and the Territories is 274, and on Dominion lands in the province of British Columbia, 278. In the Yukon Territory 115 berths have been granted, covering a total area of 275.11 square miles

The number of berths covered by permits on July 1, 1904, was 103.

MINING LANDS OTHER THAN COAL.

During the past fiscal year 55 entries for quartz claims were granted by the agents of Dominion lands in Manitoba and the North-west Territories.

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In the Yukon Territory 33,178 placer claims, 5,281 quartz claims, 38,038 renewals and re-locations were recorded up to July 1, 1904.

The returns for the fiscal year ending June 30, 1904, show that 2,534 entries for placer claims, 266 entries for quartz claims, 9,003 renewals and re-locations were recorded during the year. The revenue collected from this source and for fees collected for registering other documents in connection with mining operations was \$145,391.14.

Up to July 1, 1904, 83,841 free miners' certificates were issued, producing a revenue of \$859,295.46. During the fiscal year 7,199 free miners' certificates were issued; and the revenue derived therefrom was \$62,190.10.

The following is a list of the government agencies whereat free miners' certificates were issued during the year, and the number issued at each within the year:—

Dominion Lands Agency at—

| | |
|-------------------------------|----|
| Calgary, N.W.T. | 26 |
| Edmonton, N.W.T. | 30 |
| Lethbridge, N.W.T. | 5 |
| Winnipeg, Man. | 38 |
| Prince Albert, N.W.T. | 2 |

Agencies within the Yukon Territory—

| | |
|--------------------------|-------|
| Clear Creek | 102 |
| Dawson | 2,980 |
| Dalton Trail | 25 |
| Dominion Creek | 507 |
| Duncan | 241 |
| Forty-mile | 29 |
| Grand Forks | 753 |
| Gold Run | 352 |
| Hunker Creek | 354 |
| Hootalinqua | 44 |
| Selkirk | 40 |
| Sulphur Creek | 244 |
| Stewart River | 81 |
| Sixty-mile | 102 |
| Pelly Banks . . . . . | .... |
| White Horse | 1,174 |

Other Agencies and Agents—

| | |
|--|----|
| Ottawa, Ont., Department of the Interior | 33 |
| London, Eng., the High Commissioner's Office | 11 |
| Vancouver, B.C., the Dominion Assay Office | 9 |
| Victoria, B.C., the Collector of Customs | 17 |

Total 7,199

The total revenue received for dredging leases in the Yukon Territory up to July, 1904, was \$148,297.12, and for the fiscal year, \$640.16.

The total revenue received for the rent of the leaseholds in the North-west Territory up to July 1, 1904, was \$26,985.57, and for the past fiscal year, \$1,062.95.

The total sum collected up to July 1, 1904, for royalty on the gross output of placer mining claims in the Yukon Territory, after deducting the exemption allowed by the regulations, was \$3,099,288.89. Of this amount the sum of \$272,217.96 was collected during the last fiscal year.

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The royalty was collected at the following places :—

| | |
|------------------|--------------|
| Dawson..... | \$267,721 75 |
| White Horse..... | 4,274 31 |
| Forty-mile..... | 221 90 |
| Total..... | \$272,217 96 |

DREDGING.

Sixty-three leases to dredge for minerals other than coal in the submerged beds of rivers in the Yukon Territory are in force, covering a total mileage of 312 miles.

One hundred and twenty-eight leases to dredge for minerals in the beds of rivers in the North-west Territories are in force, covering a total mileage of 662'75 miles.

HYDRAULIC MINING.

Seventy-nine leases are in force. The total frontage of the leaseholds is 91'09 miles. The leaseholds are all situated in the Yukon Territory within a radius of 100 miles of Dawson.

COAL MINING LANDS.

The number of applications received during the year was 1,062. The revenue for the year derived from the sale of coal lands was \$68,949.75. The total area of coal lands sold up to July 1, 1904, was 86,167'18 acres and the total amount received therefor was \$383,118.45.

GRAZING LANDS.

The total number of leases in force is 889, including a total area of 2,292,504'60 acres, distributed as follows:—

| | |
|-------------------------------------|------------------|
| Province of Manitoba..... | 15,520'00 acres. |
| District of Saskatchewan..... | 4,206'00 " |
| District of Assiniboia..... | 1,091,880'30 " |
| District of Alberta..... | 848,770'00 " |
| Railway belt, British Columbia..... | 332,128'30 " |

IRRIGATION.

During the year 62 applications for authority to divert water for irrigation and other purposes were received, and 51 authorizations to construct works in accordance with the provisions of the North-west Irrigation Act were issued. One hundred and thirty-five licenses have been issued up to date to divert water.

The following is a statement of the office work performed from July 1, 1903, to June 30, 1904:—

| | |
|---------------------------------------|--------|
| Letters sent..... | 26,318 |
| Pages of memoranda and schedules..... | 6,988 |
| Plans and sketches prepared..... | 468 |

Timber—

| | |
|---|-----|
| Berths applied for..... | 339 |
| Berths granted..... | 143 |
| Berths cancelled..... | 15 |
| Licenses for timber berths prepared (in duplicate)..... | 660 |
| Instructions issued for survey of timber berths..... | 25 |
| Returns of surveys of timber berths examined..... | 53 |

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| | |
|--|-------|
| Returns of saw-mills received and verified. | 1,324 |
| Permits to cut timber issued by agents also entered and checked. | 9,759 |
| Accounts kept posted. | 749 |
| Timber seizures entered and checked. | 330 |

Grazing—

| | |
|---|-----|
| Applications for grazing lands received. | 796 |
| Leases of grazing lands issued. | 266 |
| Number of leases cancelled and relinquished. | 268 |
| Applications for hay lands. | 17 |
| Accounts kept posted—Grazing. | 871 |
| Accounts kept posted—Hay. | 6 |
| Hay permit forms used by the Dominion lands agents, also entered and checked over at this office. | 627 |

Mining—

| | |
|---|-------|
| Accounts kept posted—Dredging and hydraulic. | 220 |
| Applications for coal locations received. | 1,062 |
| Coal mining leases issued. | 18 |
| Applications for mining locations other than coal. | 87 |
| New entries and renewals for mining locations granted in Manitoba and North-west. | 55 |
| New entries and renewals for mining locations granted in Yukon Territory. | 9,269 |
| Applications for petroleum. | 16 |
| Water power. | 10 |
| Applications for hydraulic mining locations. | 6 |
| Applications for gold dredging. | 25 |
| Hydraulic mining leases prepared. | 2 |
| Gold dredging leases prepared. | 20 |

Irrigation—

| | |
|---|-----|
| Applications <i>re</i> irrigation recorded. | 62 |
| Memorials examined. | 74 |
| Plans examined. | 124 |
| Authorizations for construction of ditches issued. | 51 |
| Assignments of irrigation applications examined and recorded. | 8 |
| Certificates issued by inspector, examined and recorded. | 8 |
| Cancellation of irrigation applications issued and recorded. | 2 |
| Irrigation licenses issued (in triplicate). | 12 |

Miscellaneous—

| | |
|--|----|
| Applications to purchase or lease land in the Yukon Territory received and dealt with during the course of the year. | 75 |
| Applications for water frontage. | 5 |
| Leases for agricultural lands issued. | 1 |
| Leases for agricultural lands cancelled. | 2 |
| Leases for water frontage issued. | 1 |

G. U. RILEY,
Chief Clerk.

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REVENUE OF DOMINION LANDS

A.—STATEMENT of Receipts on account of Timber, Grazing,

| Month. | Timber Ducs. | GRAZING LANDS. | | Hay Lands. | Coal Lands. | Irrigation. | Dredging, N.W.T. |
|-----------------|-----------------|----------------|-----------|---------------|----------------|-------------|---------------------|
| | | Cash. | Scrip. | | | | |
| 1903. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| July | 37,297 85 | 1,169 47 | 1,057 68 | 807 80 | 3 45 | ..... | ..... |
| August | 15,019 89 | 1,526 48 | 436 26 | 256 30 | 3 30 | 50 00 | 302 14 |
| September | 10,584 22 | 1,587 56 | 2,771 52 | 31 00 | 10 00 | 10 00 | ..... |
| October | 40,227 89 | 784 20 | 208 26 | 8 65 | 10 00 | 10 00 | 300 00 |
| November | 57,231 61 | 1,301 56 | 1,591 63 | 5 50 | 30 00 | ..... | 8 91 |
| December | 40,619 59 | 2,063 03 | 639 75 | ..... | 6 25 | ..... | 102 00 |
| 1904. | | | | | | | |
| January | 40,890 66 | 643 81 | 354 98 | 1 10 | 89 05 | 10 04 | ..... |
| February | 19,615 81 | 1,522 27 | 1,458 93 | 0 20 | 58 50 | 30 00 | ..... |
| March | 41,112 89 | 3,237 07 | 2,982 00 | 11 80 | 63 30 | ..... | 100 00 |
| April | 27,900 35 | 2,116 40 | 2,324 91 | 302 95 | 116 75 | 3 00 | 100 00 |
| May | 31,807 15 | 2,116 91 | 268 52 | 366 35 | 5 00 | 10 00 | 50 00 |
| June | 35,036 42 | 1,721 51 | 1,107 71 | 453 55 | 115 30 | | 100 00 |
| | 397,344 33 | 19,790 27 | 15,202 15 | 2,245 20 | 510 90 | 123 04 | 1,062 95 |

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(YUKON INCLUDED).

Hay, Mineral and Irrigation, for the fiscal year 1903-1904.

| Mining Fees. | Hydran- lic, Yukon. | Dredging, Yukon. | Free Miners' Certificates. | Gold, Yukon. | Rent of Water Power. | Royalty on Water Sold, Yukon. | Fees for Issue of Clearance Certificates for United States Gold. | Total. |
|-----------------|---------------------------|---------------------|----------------------------------|-----------------|-------------------------------|---|--|------------|
| \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 15,136 50 | 322 65 | 50 84 | 8,037 50 | 50,496 17 | ..... | 47 00 | ..... | 114,426 91 |
| 20,286 30 | 610 00 | ..... | 8,053 50 | 37,135 32 | ..... | 35 75 | ..... | 83,715 24 |
| 13,033 00 | 2,810 15 | 150 00 | 6,972 50 | 50,108 05 | ..... | ..... | ..... | 88,068 00 |
| 21,192 00 | 2,168 35 | ..... | 6,804 00 | 33,671 30 | 13 95 | 27 00 | ..... | 105,425 60 |
| 13,027 00 | 1,896 12 | ..... | 5,094 00 | 676 02 | 12 05 | 12 50 | ..... | 80,886 80 |
| 11,819 25 | 500 00 | ..... | 3,254 00 | 2,972 51 | ..... | ..... | ..... | 61,976 38 |
| 7,716 59 | ..... | 230 00 | 2,300 10 | 2,147 40 | 25 80 | 6 50 | ..... | 54,416 03 |
| 6,463 00 | 600 00 | ..... | 2,395 00 | 2,775 43 | 0 35 | 11 00 | ..... | 34,930 49 |
| 9,452 50 | 725 84 | ..... | 3,599 00 | 3,499 78 | 11 72 | ..... | ..... | 64,795 90 |
| 7,563 50 | 750 00 | 209 32 | 4,972 00 | 1 51 | ..... | ..... | ..... | 46,360 69 |
| 8,024 00 | ..... | ..... | 4,969 00 | 20,915 18 | ..... | ..... | ..... | 68,532 11 |
| 12,261 50 | | | 5,739 50 | 67,819 29 | | | 27 00 | 124,381 78 |
| 145,975 14 | 10,383 11 | 640 16 | 62,190 10 | 272,217 96 | 63 87 | 139 75 | 27 00 | 927,915 93 |

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YUKON REVENUE.

D.—STATEMENT showing the total Gold production, the total exemption, the total amount upon which royalty was collected, and the amount of royalty paid, as shown by returns from the several Agencies, for each fiscal year from May 1, 1898, to June 30, 1904.

| Agency. | Gold Production. | Exemption. | Subject to Royalty. | Royalty collected. | Infringement. | Total Revenue. |
|------------------------------------|---------------------|--------------|------------------------|-----------------------|---------------|-------------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 1897-1898. | | | | | | |
| Grand Forks..... | 2,884,576 70 | 302,500 00 | 2,582,076 70 | 258,207 67 | | 258,207 67 |
| Canadian Bank of Commerce..... | 153,906 50 | 23,945 00 | 129,961 50 | 12,996 15 | | 12,996 15 |
| Dawson..... | 34,290 00 | 13,400 00 | 20,890 00 | 2,089 00 | | 2,089 00 |
| Totals for the year..... | 3,072,773 20 | 339,845 00 | 2,732,928 20 | 273,292 82 | | 273,292 82 |
| 1898-1899. | | | | | | |
| Grand Forks..... | 5,501,969 65 | 1,062,151 00 | 4,439,818 65 | 443,981 65 | | 443,981 65 |
| Canadian Bank of Commerce..... | 485,429 15 | 123,500 00 | 361,929 15 | 36,192 91 | | 36,192 91 |
| Dawson..... | 347,781 30 | 7,500 00 | 340,281 30 | 34,028 13 | 1,301 24 | 35,329 37 |
| Dominion Creek..... | 806,012 36 | 314,590 81 | 491,421 55 | 49,142 15 | 379 91 | 49,522 06 |
| Hunker Creek..... | 441,090 56 | 191,915 21 | 249,175 35 | 24,917 53 | | 24,917 53 |
| Totals for the year..... | 7,582,283 02 | 1,699,627 02 | 5,882,656 00 | 588,262 37 | 1,681 15 | 589,943 52 |
| 1899-1900. | | | | | | |
| Grand Forks..... | 4,391,439 82 | 1,146,814 42 | 3,244,624 90 | 324,462 49 | | 324,462 49 |
| Canadian Bank of Commerce..... | 1,739,935 98 | 277,407 78 | 1,462,528 20 | 146,254 79 | | 146,254 79 |
| Dawson..... | 625,042 92 | 67,083 42 | 557,959 50 | 55,795 95 | 2,269 05 | 58,065 00 |
| Dominion Creek..... | 1,360,448 54 | 412,957 84 | 947,490 70 | 94,749 06 | | 94,749 06 |
| Hunker Creek..... | 740,005 36 | 338,866 36 | 401,139 00 | 40,113 90 | | 40,113 90 |
| Bank of British North America..... | 500 00 | | 500 00 | 50 00 | | 50 00 |
| Sulphur Creek..... | 358,282 86 | 155,194 36 | 203,088 50 | 20,308 85 | | 20,308 85 |
| Gold Run..... | 593,789 96 | 103,420 46 | 490,369 50 | 49,036 95 | | 49,036 95 |
| Totals for the year..... | 9,809,464 64 | 2,501,744 64 | 7,307,720 00 | 730,771 99 | 2,269 05 | 733,041 04 |

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| | | | | | | |
|---------------------------|---------------|--------------|--------------|------------|----------|------------|
| 1900-1901. | | | | | | |
| Grand Forks | 5,945,798 86 | 1,033,599 98 | 4,914,304 88 | 392,326 86 | | 392,326 86 |
| Dawson | 574,286 07 | 131,666 66 | 432,619 41 | 39,249 79 | ..... | 42,966 84 |
| Dominion Creek | 933,051 60 | 257,499 98 | 675,551 62 | 57,414 26 | ..... | 57,414 26 |
| Hunker Creek | 736,490 33 | 258,900 00 | 527,590 33 | 42,671 53 | ..... | 42,671 53 |
| Sulphur Creek | 393,004 37 | 115,000 00 | 278,004 37 | 24,337 88 | ..... | 24,337 88 |
| Gold Run | 517,041 10 | 117,500 00 | 399,541 10 | 35,814 22 | ..... | 35,814 22 |
| Hootalinqua | 10,518 59 | 2,500 00 | 8,018 59 | 801 85 | ..... | 801 85 |
| Eureka | 1,891 87 | 1,000 00 | 891 87 | 44 59 | ..... | 44 59 |
| Totals for the year | 9,162,082 79 | 1,927,666 62 | 7,236,522 17 | 592,600 98 | 3,707 05 | 596,368 03 |
| 1901-1902. | | | | | | |
| Grand Forks | 3,062,977 37 | 441,166 66 | 2,621,810 71 | 131,087 03 | ..... | 131,087 03 |
| Dawson | 4,069,114 52 | 60,000 00 | 4,009,114 52 | 113,426 84 | 95 25 | 113,522 09 |
| Dominion Creek | 732,788 85 | 219,999 32 | 512,789 53 | 25,748 35 | ..... | 25,748 35 |
| Hunker Creek | 836,388 49 | 307,948 66 | 528,439 83 | 26,420 80 | ..... | 26,420 80 |
| Sulphur Creek | 239,533 98 | 85,000 00 | 154,533 98 | 7,726 73 | ..... | 7,726 73 |
| Gold Run | 581,184 00 | 65,000 00 | 516,184 00 | 25,809 42 | ..... | 25,809 42 |
| Eureka | 20,533 31 | 15,000 00 | 5,533 31 | 276 62 | ..... | 276 62 |
| White Horse | 6,840 00 | ..... | 6,840 00 | 342 00 | ..... | 342 00 |
| Forty Mile Creek | 16,980 00 | 5,000 00 | 11,980 00 | 599 00 | ..... | 599 00 |
| Totals for the year | 9,566,340 52 | 1,199,114 64 | 8,367,225 88 | 331,436 79 | 95 25 | 331,532 04 |
| 1902-1903. | | | | | | |
| Dawson | 12,081,594 84 | ..... | ..... | 302,107 67 | ..... | 302,107 67 |
| White Horse | 24,799 50 | ..... | ..... | 620 21 | ..... | 620 21 |
| Forty Mile | 6,621 00 | ..... | ..... | 165 61 | ..... | 165 61 |
| Totals for the year | 12,113,015 34 | ..... | ..... | 302,893 48 | ..... | 302,893 48 |
| 1903-1904. | | | | | | |
| Dawson | 10,708,788 27 | ..... | ..... | 267,721 75 | ..... | 267,721 75 |
| White Horse | 73,002 35 | ..... | ..... | 4,274 31 | ..... | 4,274 31 |
| Forty Mile | 8,872 50 | | | 221 90 | | 221 90 |
| Totals for the year | 10,790,663 12 | | | 272,217 96 | | 272,217 96 |

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YUKON REVENUE.

E—STATEMENT showing the Revenue collected on Free Miners' Certificates issued at the following places in Great Britain and the Dominion of Canada, during the years 1898 to June 30, 1904.

| Agency. | 1897-1898. | 1898-1899. | 1899-1900. | 1900-1901. | 1901-1902. | 1902-1903. | 1903-1904. | Totals. |
|-----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Agent of Dominion Lands :— | | | | | | | | |
| Brandon, Man. | | 10 00 | 30 00 | | | | | 40 00 |
| Calgary, Alta. | 650 00 | 100 00 | 250 00 | 215 00 | 150 00 | 145 00 | 187 50 | 1,707 50 |
| Dauphin, Man. | | 10 00 | | | | | | 10 00 |
| Edmonton, Alta. | 8,394 00 | 490 00 | 1,000 00 | 213 00 | 92 00 | 87 50 | 223 50 | 10,500 00 |
| Kamloops, B. C. | 50 00 | 20 00 | 10 00 | 10 00 | | | | 90 00 |
| Lethbridge, Alta. | | | 10 00 | 30 00 | 390 00 | 340 00 | 105 00 | 875 00 |
| New Westminster, B. C. | 130 00 | | 30 00 | | 35 00 | | | 195 00 |
| Prince Albert, Sask. | 710 00 | 10 00 | 10 00 | | 20 00 | | 15 00 | 765 00 |
| Winnipeg, Man. | 570 00 | 900 00 | 320 00 | 280 00 | 385 00 | 480 00 | 422 50 | 3,357 50 |
| Agencies within Yukon :— | | | | | | | | |
| Clear Creek. | | 169,152 00 | | | 783 00 | 1,175 00 | 805 00 | 2,763 00 |
| Dawson. | | 710 00 | 79,526 00 | 76,260 00 | 63,395 00 | 46,401 00 | 27,496 50 | 462,230 50 |
| Dalton Trail. | | 3,950 00 | 300 00 | 30 00 | 1,330 00 | 5,277 50 | 150 00 | 2,797 50 |
| Dominion. | | | 8,284 00 | 7,219 00 | 8,580 00 | 5,423 00 | 3,994 00 | 37,450 00 |
| Duncan. | | | | | | 1,032 50 | 1,927 00 | 2,959 50 |
| Fort Cudaly. | | 350 00 | 1,140 00 | 140 00 | | | | 1,630 00 |
| Forty Mile. | | | | 600 00 | 1,262 50 | 844 00 | 215 00 | 2,921 50 |
| Grand Forks. | 27,502 00 | | 18,298 00 | 18,893 00 | 16,766 00 | 10,371 00 | 6,712 50 | 98,542 50 |
| Gold Run. | | | 170 00 | 4,397 00 | 5,752 00 | 3,224 00 | 2,750 50 | 16,263 50 |
| Hunker. | | | 3,850 00 | 5,216 00 | 5,954 00 | 4,050 50 | 2,867 50 | 21,938 00 |
| Hootalinqua. | | | 90 00 | 930 00 | 1,495 00 | 727 50 | 477 50 | 3,720 00 |
| Lake Bennett. | 7,904 00 | 80 00 | | | | | | 7,984 00 |
| McQueston. | | 102 00 | 10 00 | | | | | 112 00 |
| Sellkirk. | | | 1,952 00 | 405 00 | 625 00 | 377 60 | 300 00 | 3,659 50 |
| Stewart River. | | 5,734 00 | 1,512 00 | 1,919 00 | 2,970 00 | 1,912 50 | 627 50 | 14,975 00 |
| Sulphur Creek. | | | 610 00 | 1,984 00 | 2,180 00 | 2,303 50 | 1,896 00 | 8,973 50 |
| Sixty Mile. | | | | | | 450 00 | 805 00 | 1,255 00 |
| Tagish (Wood). | | 2,416 00 | | | | | | 2,416 00 |
| Tagish (Miller). | | 642 00 | | | | | | 642 00 |
| Tagish Lake. | | 9,246 00 | 4,646 00 | 2,600 00 | 3,069 00 | 1,540 00 | | 12,497 00 |
| Upper Stewart River. | | | | | | | | 9,246 00 |
| Pelly Banks. | | | | 130 00 | | 35 00 | 8,917 50 | 35 00 |
| White Horse. | | | | | | | | 130 00 |
| Collectors of Customs :— | | | | | | | | |
| Ashcroft, B. C. | 410 00 | | | 750 00 | | | | 410 00 |
| Atlin, B. C. | | 1,000 00 | 760 00 | | | | | 2,510 00 |

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| | | | | | | | | |
|---|------------|------------|------------|------------|------------|-----------|-----------|------------|
| Glenora, B.C. | 410 00 | 600 00 | 70 00 | 30 00 | 20 00 | | | 1,010 00 |
| Montreal, Que. | 840 00 | 170 00 | | | | | | 1,130 00 |
| Nanaimo, B.C. | 4,292 00 | ..... | ..... | ..... | ..... | ..... | ..... | 4,292 00 |
| Rossland, B.C. | 20 00 | ..... | ..... | ..... | ..... | ..... | ..... | 20 00 |
| Toronto, Ont. | 270 00 | ..... | ..... | ..... | ..... | ..... | ..... | 270 00 |
| Vancouver, B.C. | 30,480 00 | 1,340 00 | 610 00 | 280 00 | 20 00 | ..... | ..... | 32,734 00 |
| Victoria, B.C. | 58,910 00 | 1,528 00 | 520 00 | 370 00 | ..... | ..... | ..... | 62,043 00 |
| Vancouver Assay Office. | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Ottawa, Dept. of Interior. | 1,890 00 | 822 00 | 2,192 00 | 2,495 00 | 147 00 | 162 50 | 232 50 | 62,043 00 |
| Rat Portage, P. H. Austin. | ..... | 340 00 | 380 00 | 300 00 | 2,380 00 | 40 00 | 82 50 | 269 50 |
| London, The High Commissioner's Office. | 29 98 | 120 00 | 119 80 | 195 00 | 60 00 | 1,000 00 | 872 60 | 11,651 50 |
| Liverpool, The Immigration Agent. | 219 93 | ..... | ..... | ..... | 20 07 | 225 02 | 107 50 | 1,080 00 |
| Glasgow, The Immigration Agent. | 59 98 | 10 13 | ..... | ..... | 111 45 | ..... | ..... | 817 37 |
| Total. | 116,243 89 | 227,354 13 | 126,709 80 | 125,861 00 | 118,312 02 | 82,624 52 | 62,190 10 | 859,295 46 |

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No. 18A.

CANADIAN IRRIGATION SURVEYS.

REPORT OF JOHN STOCKS, C.E., IN CHARGE.

DEPARTMENT OF PUBLIC WORKS,
IRRIGATION OFFICE,
REGINA, August 3, 1904.

The Secretary,
Department of the Interior,
Ottawa.

SIR,—I beg to forward herewith the summary report of irrigation progress for insertion in the annual departmental report for the year ending June 30, 1904, together with a copy of the report submitted by Mr. R. W. Macintyre, C.E., showing in detail the season's work performed by himself and party until closing down in October last.

Your obedient servant,

JOHN STOCKS,
Deputy Commissioner.

The past year has again to be classed as a 'wet season,' being the fourth in succession, and therefore the practice of irrigation in the Territories was not made use of to any great extent.

The field work of the general irrigation surveys was carried on by two divisions, in charge of Mr. R. W. Macintyre, C.E., and Mr. J. G. McIntosh, respectively.

Party No. 1, in charge of Mr. Macintyre, continued the contour survey work north from township 23 to township 27, range 21, west of the 4th meridian, and completed same on August 5, 1903. The work was then carried south from Gleichen, a line of levels being run across the Blackfoot Indian reserve to establish a datum for the survey of the proposed Bow river and Snake Valley irrigation canal schemes. During the balance of August and the first half of September the party was employed in contouring and cross-sectioning the country through which the proposed canal would pass. The work of the party north of Bow river included 293 miles of levels run, representing an area of 250 square miles contoured; also several miles of traverse, and 15 miles of levels run immediately east of Calgary to bring the earlier system up to date. South of the Bow river 50 miles of line levels were run and 17 miles of canal location levels, embracing an area of 60 square miles. In connection with the proposed scheme for the diversion of water from Bow river into the Snake Valley and Little Bow river, a traverse, with accompanying levels, was made along the south bank of Bow river from section 28, township 21, range 26, west 4th meridian, to a point on the Blackfoot Indian reserve, 17 miles further down stream.

Party No. 2, in charge of Mr. J. G. McIntosh, continued work of the hydrographic section of the irrigation surveys, establishing gauge rods on creeks and streams, arranging for the necessary records thereof to be kept, and completing the work left over from the previous year. The party commenced operations at Calgary, and proceeded south to Lethbridge, thence north-easterly through the Cypress Hills country to Maple Creek, and in addition to the work above mentioned, inspections of and reports upon several irrigation schemes were made.

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The continued immigration of settlers from the United States has caused numerous inquiries regarding the irrigation laws in the Territories to be made, and as a result many applications have been recorded for water rights for irrigation and domestic purposes under the North-west Irrigation Act, 1898. The following statement regarding irrigation will be of interest:—

| | |
|--|------------------|
| Number of canals and ditches constructed.. . . . | 175 |
| Length " " " " " Miles | 525 |
| Acreage susceptible of irrigation from canals and ditches (approximate) | *4,125,000 Acres |
| Number of applications recorded for water rights for domestic, power and other purposes (in addition to rights applied for for irrigation purposes) | 180 |

Since the issue of the previous report the Canadian Pacific Railway Company has filed an application to divert water from the Bow river for the reclamation by irrigation of the above mentioned tract of land, and has received authorization therefor. Contracts for construction of headworks, &c., and the first sixty miles of canal have been let, and the work upon this important undertaking has already been commenced.

Mr. B. J. Saunders resigned the position of deputy commissioner of public works at the end of March last, when I took up the duties of that office, and owing to this change the report on Irrigation and Canadian Irrigation Surveys, with accompanying maps, plans, &c., will be prepared later for publication in monograph form as a supplementary report of the department.

No. 18B.

CANADIAN IRRIGATION SURVEYS.

REPORT OF R. W. MACINTYRE, A.M. CAN. SOC. C. E., IN CHARGE OF PARTY NO. 1.

REGINA, ASSA., November 26, 1903.

To the Deputy Commissioner,
Irrigation Office, Regina.

SIR,—I beg to submit the following report of my season's work on irrigation surveys from May to October during the present year.

I left Regina on May 8 and reached Calgary the following morning. A camp was put up the same day (Tuesday), the party got together and put to work getting things ready for the season's work. On May 13 I left by train for Okotoks to inspect Mr. A. W. Rowland's irrigation ditch, returning on the 15th. On May 17 a severe snow-storm set in and lasted for the next two days, entirely blocking the trails for wheeled traffic. As the question of my party being employed by the Canadian Pacific Railway Company's irrigation department had been submitted to Ottawa about this time, I decided to employ my men just east of Calgary by 'filling in' the contour work done there in 1898. The present system of contour survey was inaugurated in 1898, but the general plan laid down for the work has been improved upon during subsequent years and the work undertaken by my party (whilst awaiting the decision of the depart-

* (Including areas of 3,000,000 and 500,000 acres, to be reclaimed by irrigation projects of the Canadian Pacific Railway Company and the Canadian North-west Irrigation Company, respectively.)

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ment at Ottawa) was that of bringing the 1898 work into line with more recent years' contour survey, by dividing the area levelled over into smaller sections. On June 6 the Canadian Pacific Railway Company's irrigation department having withdrawn their offer regarding my party, we took the trail for Gleichen, which was reached on the 8th; from this point we turned north to reach township 25, range 22 west 4th meridian, where the survey was closed down last season. Upon commencing to level the meridians in this township I found that mounds had not been established either at quarter section or section corners (with one or two exceptions), and as the country is very rough and broken here, work was severely handicapped, not only on account of missing corners, but also because the telemeter and stadia level had not been received from makers, where they had been sent for repairs during the winter; consequently, ordinary Y levels had to be used pro tem., and measurements made by buckboard, wheel or pacing. We finished this township on June 17 and moved south the next day, taking township 22, range 21. W. 4th meridian, for our next base. This township was commenced on June 20 and finished by the 29th; camp was moved into township 23 (the next north) the following day and the contour carried north in range 21 to township 27, which was completed on August 5.

On July 4 the topographer, A. E. Burley, resigned on account of ill-health, and he left for Regina, his place being promptly filled by one of the party, and a new man engaged.

Camp started south from township 27 on August 6 and a little additional work was done on the way to Gleichen, which was reached on the 12th. Instructions were there received to continue south, cross the Bow river and make a survey of the Bow and Snake Valley canal scheme. On reaching the Bow river, however, I found the ferry was not quite completed, and as fording was out of the question we camped on the Blackfoot Indian reserve close to ferry site. Levels were then run south across the Blackfoot reserve from the north boundary to connect the systems already completed on the north and south sides of Bow river respectively.

On August 19 we crossed our outfit by letting the wagons down on to ferry with ropes, the approaches thereto being incomplete, and travelled south to township 19, range 22, where we camped. The balance of August and first half of September were employed in contouring and cross-sectioning the country adjoining south bank of Bow river valley (towards the west) through which the proposed canal would pass. On September 15 my assistant, J. F. Hamilton, and his rodman, left for Calgary, reducing the party by two, viz., an instrument man and rodman. Mr. Hamilton's departure was caused by the necessity of reaching the School of Practical Science at Toronto in time to resume his studies for the fall term. The work completed north of Bow river between the commencement of field operations in May and August 10 includes 293 miles of levels run, representing an area of 250 square miles contoured, also several miles of traverse and 15 miles of levels run just east of Calgary to bring the earlier system up to date.

South of the Bow river (which was crossed on August 19) 50 miles of levels were run and 17 miles of canal location levels, embracing an area of about 60 square miles.

DIVERSION OF BOW RIVER INTO SNAKE VALLEY AND LITTLE BOW RIVER.

A traverse, with accompanying levels, was made along the south bank of Bow river from section 28, township 21, range 26, west 4th meridian, to a point on the Blackfoot Indian reserve, 17 miles further down stream. Any canal system put in from the above intake would have at least 10 miles of cut bank, timbered with spruce, poplar and bush, to negotiate, and this factor alone appeared to me a good reason for abandoning the traverse after finishing the 17 miles mentioned. To carry water along the above mentioned banks would be both costly and difficult, with the additional disadvantage of the first two or three miles being below flood level, and liable to destruction from any rapid rise of the Bow river; then the nature of the soil composing the

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banks is, on the whole, not suitable to carry water to advantage, being mainly gravel and boulders, with shale on the steepest slopes; also, the banks plainly indicate continual slides, which would probably be aggravated by construction work and water flowing in a canal or ditch. Then the question of trees, brush and roots has to be considered, as these were encountered plentifully along the 17 miles traversed. Commencing at point of intake, section 28, township 21, range 26, west 4th meridian, the Bow river falls between 9 and 10 feet per mile, but this reduces gradually (going down stream) to end of traverse, where the fall is between 7 and 8 feet per mile. Allowing 3 feet per mile for slope of canal gives rather a small gain on the fall of the river, viz., an average of 5.5 feet per mile, or 100 feet in 18 miles. In the total traverse 30 coulees, ravines and creeks were crossed, some of them very deep and wide, and the grade line had not reached bench land, across which proposed canal must be carried southeast at point where traverse was abandoned. This would involve further expense in deep cutting, which I did not consider worth while going into in detail, in view of the uncompromising conditions already encountered. The north bank of the Bow river is no better for location, and would involve the additional drawback of an expensive flume.

After completing the preliminary investigation outlined above, levels were carried west along section lines to B. M. 28, a distance of 108 miles. The closing difference was 1 foot in connecting up the levels, which extended over 9 years and comprised both level and telemeter-level work.

GENERAL.

The season was a very wet and backward one for field work, and but little real summer weather was met with; out of 130 working days 50 brought rain or snow in varying quantities.

On September 26 a drowning fatality occurred within a few miles of our camp, by which Staff-Sergeant Brooke, J. Disbury and interpreter Beaupre lost their lives while attempting to ford the Bow river, at a ford on the Blackfoot Indian reserve, with a police wagon and team.

We experienced a great deal of trouble in getting to Gleichen after crossing the Bow river, and generally had to use a small boat and hire Indian transport on the north side, or swim our horses behind the boat, as the regular ferry broke away shortly after completion.

All of which is respectfully submitted.

Your obedient servant,

R. W. MACINTYRE,

A. M. Can. Soc. C. E.

No. 19.

REPORT OF THE CROWN TIMBER AGENT AT WINNIPEG.

DEPARTMENT OF THE INTERIOR,

CROWN TIMBER OFFICE,

WINNIPEG, August 30, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit my annual report as Crown timber agent for the departmental year ended June 30 last.

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Appended to the report will be found tabulated statements containing the following particulars, namely:—

(a) The total revenue collected from all sources during the year.

(b) List of the names of the respective licensees of timber berths within the agency being operated, and the quantity of lumber and other products of timber taken therefrom, that sold, and amount on hand.

RECEIPTS.

The total revenue collected during the year from all sources, the details of which are given in schedule 'A,' amount to \$140,579.28, which is a very satisfactory showing.

Collections have been closely made, and there are very few accounts overdue outstanding.

LUMBERING OPERATIONS.

The output of lumber, &c., manufactured at the saw-mills cutting timber procured from Dominion lands shows about the same as last year. Full particulars are given in schedule 'B.'

As has been the practice in past years, I give the following particulars showing the total quantity of lumber disposed of during the year in this district (which covers the province of Manitoba and eastern Assiniboia), and also the source from whence it came:—

| | |
|--|-------------------|
| Sales from mills operated in western Ontario at points west of Port Arthur, viz: at Rat Portage, Keewatin, Savanne, Pigeon river, Rainy river and at a few other points. | 125,000,000 feet. |
| Shipped from British Columbia. | 105,000,000 " |
| From mills operated in Manitoba— | |
| On Dominion lands under license. | 28,866,143 " |
| On Dominion lands under pay permits. | 8,000,000 " |
| On Dominion lands under free permits. | 6,000,000 " |
| Lumber imported from United States. | 70,000,000 " |
| Total. | 342,866,143 " |
| Estimated quantity sold during preceding year. | 274,779,853 " |

In addition to the quantity of lumber named as coming from the United States this year, a considerable quantity of round timber was brought in for manufacture at our mills. Mr. D. E. Sprague imported upwards of 4,000,000 feet which came from northern Minnesota and was brought down the Red river to Winnipeg.

During the year two valuable accessions were made to the number of mills in this agency.

The Red Deer Lumber Company have completed the erection of what is by far the largest capacity mill in Manitoba or the North-west, which is located at Red Deer lake, on a branch of the Canadian Northern Railway in township 45, range 28, west 1st meridian.

It is equipped throughout with the latest improved machinery, and is capable of cutting 150,000 feet B.M. in ten hours. The mill, planing-mill attachment and plant represent a money investment of upwards of \$200,000.

This company is conducting operations on timber berths Nos. 92, 958 and 988, respectively, and cut last winter upwards of 35,000,000 feet of timber, which is now in the process of being manufactured.

The other mill referred to is that of the Rat Portage Lumber Company erected at Norwood, across the Red river from Winnipeg. It has a capacity for ten hours of 60,000 feet, with accessories, which consist of a planing-mill and box factory. It

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represents an investment of upwards of \$70,000. This mill gets its logs from the Rainy river district, which are brought to it over the line of the Canadian Northern Railway. The output of lumber this year it is expected will be in the neighbourhood of 3,000,000 feet.

The following figures as to the wholesale price at which lumber is selling at railway points in this agency were obtained from careful inquiry:—

Pine and fir—

| | |
|---------------------------------------|----------------------------------|
| Dimension lumber. | \$18 to \$25 according to grade. |
| Finishing in fir. | 30 to 40 “ “ |
| Flooring, siding and ceiling. | 23 to 35 “ “ |
| Ship-lap and common boards. | 18 to 21 “ “ |

Spruce—

| | |
|-------------------------------|---|
| Dimension and boards. | 16 to 18 “ “ |
| Lath. | \$2.75 to \$3.75 (including pine and fir) |
| Shingles (cedar). | 1.80 to 2.50 |

The selling price in Winnipeg is slightly lower in some particulars than the figures above.

FUEL.

The figures given hereunder represent approximately the quantity of coal used in Manitoba and in the Territories as far west as Regina, during the year, excepting that used by the railroads:—

| | Tons. |
|---|---------|
| American Anthracite. | 48,000 |
| “ Bituminous. | 9,500 |
| Canadian Anthracite. | None |
| “ Bituminous. | 70,000 |
| “ Lignite (Souris). | 105,000 |
| | <hr/> |
| | 232,500 |
| The figures for the preceding year are. | 160,500 |

CORDWOOD.

I am unable to give even approximately the amount of cordwood consumed this year throughout the agency. I have been able to obtain that used in the city of Winnipeg, namely, 135,000 cords, which brought the following prices f.o.b. in car lots:—

| | |
|--------------------|------------------|
| Poplar. | \$3 00 to \$3 50 |
| Tamarac. | 4 50 “ 5 00 |
| Spruce. | 3 75 “ 4 25 |
| Jack pine. | 4 00 “ 5 00 |
| Oak. | 5 50 “ 6 00 |

FOREST FIRES.

Owing to the wet fall and spring, and the action taken through the fire guardians under the forestry branch of the department, very little damage occurred to the timber on Dominion lands during the year.

HAY.

The hay crop last year was light, and feed of all kinds was high-priced during the winter. This year there is an abundant crop of not only hay but oats and barley.

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The hay permits issued from this office during the year were:—

| | |
|----------------------------|---------------------|
| On school lands. | 493 for 13,890 tons |
| On Dominion lands. | 128 " 2,840 " |

BUILDING MATERIAL.

The demand for building material, besides lumber before referred to, has never been as great. The brick manufacturers and stone quarries have been working night shifts in order to meet the demands made upon them. The gypsum beds at Lake St. Martin, referred to fully in my last annual report, and the cement beds in southern Manitoba, have been worked to the fullest capacity of their plants. Reference is made in my report as agent of Dominion lands to the extent of building taking place in the city of Winnipeg and in the surrounding country.

It is gratifying to note that so large a proportion of the materials used in the construction of buildings and works is obtained in Canada, and chiefly within the provinces of Manitoba.

Respectfully submitted,

E. F. STEPHENSON,

Crown Timber Agent.

SCHEDULE A.

STATEMENT of Receipts from Timber, Grazing, Hay and Mining Lands, collected at the Winnipeg Agency, for the Year ended June 30, 1904.

| Month. | TIMBER DUES. | | | | SCHOOL LANDS. | | | | GRAZING LANDS. | | HAY LANDS. | | Mining Fees. | Totals. | | |
|------------------------|--------------|--------------|-------------|-------------|---------------|-----------|-----------------------|------|----------------|----------|-----------------|---------------|--------------|-------------|------------------------------|---------------------------|
| | Bonus. | Ground Rent. | Royalty. | | Permits. | Seizures. | Cultiva- tion Permits | | Timber Permits | Seizures | Dominion Lands. | School Lands. | | | Dominion Lands, Hay Permits. | School Lands, Hay Permits |
| | | | \$ | cts. | | | \$ | cts. | | | | | | | | |
| 1903. | | | | | | | | | | | | | | | | |
| July..... | | \$ 1,104 12 | \$ 3,086 87 | \$ 1,761 95 | \$ 208 77 | | \$ 22 25 | | \$ 4 45 | \$ 31 80 | \$ 59 20 | \$ 350 70 | \$ 32 50 | \$ 6,662 61 | | |
| August..... | | 3 22 | 3,032 28 | 1,219 21 | 219 57 | | 42 75 | | | | 4 30 | 93 50 | 172 80 | 4,798 93 | | |
| September..... | | | | 325 13 | 71 35 | | 6 00 | | | | 3 50 | 3 00 | 75 00 | 550 88 | | |
| October..... | | 16 85 | 969 26 | 1,827 14 | 1,075 27 | | 44 25 | | | | 1 80 | 4 20 | 185 00 | 4,123 77 | | |
| November..... | | 264 86 | 2,083 44 | 1,705 81 | 477 54 | | 136 25 | | | | | | 20 00 | 4,705 85 | | |
| December..... | | 333 26 | 2,348 70 | 5,905 55 | 1,910 47 | | 67 50 | | | 9 60 | | | 32 50 | 11,456 60 | | |
| 1904. | | | | | | | | | | | | | | | | |
| January..... | | 11 17 | 1,296 44 | 2,584 73 | 480 10 | | 372 00 | | 3 00 | 57 60 | 1 00 | | 65 00 | 4,871 04 | | |
| February..... | | 14 76 | 2,546 24 | 1,999 33 | 590 66 | | 141 50 | | 4 45 | | | | 127 50 | 5,424 44 | | |
| March..... | | 115 00 | 56 77 | 1,163 50 | 172 00 | 3 00 | 50 75 | | | | | | 62 50 | 1,623 52 | | |
| April..... | | 1,872 10 | 598 91 | 598 13 | 485 50 | | | | 0 80 | 28 35 | 70 40 | 343 95 | 7 50 | 3,966 64 | | |
| May..... | | 2,060 75 | 586 69 | 636 91 | 11 00 | | 208 50 | | 0 60 | 38 40 | 68 70 | 240 75 | 35 00 | 3,897 55 | | |
| June..... | | 598 53 | 1,302 05 | 1,619 76 | 370 39 | | 65 50 | | | 64 40 | 137 90 | 469 90 | 120 00 | 4,752 93 | | |
| Totals..... | | 6,364 62 | 17,907 65 | 21,308 25 | 6,072 62 | 3 00 | 1,157 25 | | 13 30 | 268 55 | 346 80 | 1,506 00 | 935 30 | 56,834 76 | | |
| Paid at Head office .. | 77,860 41 | 3,517 91 | | 29 50 | 19 20 | | 2,317 50 | | | | | | | 83,744 52 | | |
| Grand totals.. | 77,860 41 | 9,882 53 | 17,907 65 | 21,337 75 | 6,091 82 | 3 00 | 3,474 75 | | 13 30 | 268 55 | 346 80 | 1,506 00 | 935 30 | 140,579 28 | | |

Total revenue for present year as above\$ 140,579 28
" previous year, 1902-03..... 117,983 83

Increase.....\$ 22,595 45

E. F. STEPHENSON,
Crown Timber Agent.

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SCHÉD

SHOWING Saw Mills in the Province of Manitoba operating under Govern

| Name. | Situation of Mill. | Kind of Power | Location of Limits. | Lumber manufactured. | Lumber sold from quantity manufactured and from that on hand from previous year. | Lumber on hand. |
|---|------------------------|---------------|------------------------|----------------------|--|-----------------|
| | | | | ft. | ft. | ft. |
| Peter McArthur..... | Lake Winnipegosis..... | Steam | Lake Winnipegosis..... | 3,974,311 | 3,150,274 | 1,018,936 |
| Wm. Robinson..... | Selkirk..... | " | Lake Winnipeg..... | 2,936,810 | 2,795,238 | 173,789 |
| Jas. Drake Lumber Co. | Bad Throat River..... | " | Bad Throat River..... | 1,653,492 | 1,368,811 | 226,600 |
| John Hanbury..... | Brandon..... | " | Duck Mountain..... | 3,099,900 | 3,998,061 | 1,213,132 |
| Dauphin Lumber Co. | Riding Mountain..... | " | Riding Mountain..... | | | |
| Kristjan Funison..... | Icelandic River..... | " | Icelandic River..... | | | |
| J. D. McArthur..... | Tp. 14, R. 10 E..... | " | Tp. 14, R. 10 E..... | 2,786,793 | 1,754,375 | |
| Thomas & Co..... | Tp. 18, R. 3 E..... | " | Tp. 18, R. 3 E..... | | | |
| Jos. T. Thomas..... | Tp. 18, R. 3 E..... | " | Tp. 18, R. 3 E..... | 430,000 | 430,000 | |
| Ross Bros..... | Whitemouth..... | " | Whitemouth..... | 1,149,921 | 1,149,921 | |
| G. B. Housser..... | Riding Mountain..... | " | Riding Mountain..... | | 250,000 | |
| A. L. Wells..... | Washow Bay..... | " | Washow Bay..... | | | |
| Wm. Peden..... | Rosburn..... | " | Rosburn..... | 426,810 | 326,810 | 100,000 |
| Thomas Fulton..... | Tp. 38, R. 5 W. 2..... | " | Tp. 38, R. 5 W. 2..... | | 102,185 | 138,615 |
| Shaw Bros..... | Riding Mountain..... | " | Riding Mountain..... | 2,190,942 | 3,442,915 | 1,723,402 |
| Lake Manitoba Quarry and Trans. Co..... | Lake Manitoba..... | " | Lake Manitoba..... | 209,500 | 31,000 | 178,500 |
| Theo. A. Burrows..... | Garland..... | " | Garland..... | 4,358,262 | 4,844,059 | 275,008 |
| J. H. McClure..... | Tp. 19, R. 2 E..... | " | Tp. 19, R. 2 E..... | 396,653 | 376,006 | 190,774 |
| W. J. Manning..... | Tp. 20, R. 1 W..... | " | Tp. 20, R. 1 W..... | 560,131 | 390,131 | 170,000 |
| Ritchie Bros..... | Ochre River..... | " | Ochre River..... | 703,880 | 902,116 | 481,821 |
| Mackenzie & Mann Co. | Fisher's Siding..... | " | Fisher's Siding..... | | 80,674 | |
| D. E. Sprague..... | Winnipeg..... | " | Rosseau River..... | 561,319 | 699,267 | |
| D. H. Briggs..... | Shell River..... | " | Shell River..... | 785,638 | 1,654,842 | |
| Red Deer Lumber Co. | Swan River..... | " | Tp. 40, R. 5 W. 2..... | 2,894,237 | 859,958 | 2,230,400 |
| Swan River "..... | Minitonas..... | " | Tp. 36, R. 24 W..... | 1,602,929 | 259,500 | 1,469,726 |
| | | | | 30,721,528 | 28,866,143 | 9,590,703 |

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ULE B.

ment License, for the year between June 30, 1903, and June 30, 1904.

| Shingles manufactured. | Shingles sold from quantity manufactured and from that on hand from previous year. | Shingles on hand. | Lath manufactured. | Lath sold from quantity manufactured and on hand from previous year. | Lath on hand. | Railway ties manufactured. | Railway ties sold. | Last Return. | Remarks. |
|------------------------|--|-------------------|--------------------|--|---------------|----------------------------|--------------------|--------------|--------------------------------------|
| cds. | cds. | cds. | M. | M. | M. | pcs. | pcs. | 1904. | |
| ..... | 4,250 | ..... | 1,700 | 34,750 | ..... | 6,447 | 6,447 | June 30. | |
| 45,000 | 144,250 | ..... | ..... | ..... | ..... | ..... | 2,896 | " 30. | |
| | | | | | | | | " 30. | |
| | | | | | | | | " 30. | |
| | | | | | | | | Mar. 31. | Not operating this season. |
| | | | | | | | | June 30. | " " " |
| | | | | | | | 425 | " 30. | 875 cords wood sold. |
| | | | | | | | | " 30. | Not operating this year. |
| | | | | | | | | " 30. | |
| | | | | | | | | " 30. | |
| | | | | | | | | Mar. 31. | |
| | | | | | | | | June 30. | Logs cut but not manufactured. |
| | | | | | | | | Mar. 31. | |
| 387,750 | 416,250 | 172,750 | 173,750 | 206,550 | 88,350 | ..... | ..... | June 30. | |
| | | | | | | | | " 30. | |
| | | | 41,150 | 41,150 | ..... | ..... | ..... | " 30. | Permit. |
| | | | | | | | | " 30. | 350 cords wood sold. |
| | | | | | | | | " 30. | |
| ..... | 140,000 | ..... | ..... | ..... | ..... | ..... | ..... | " 30. | |
| | | | | | | | | " 30. | 112 " |
| | | | | | | | | " 30. | |
| | | | | | | | 483 | " 30. | 2,000 posts sold; 454 cds. wd. sold. |
| | | | 498,666 | 125,650 | 373,016 | ..... | ..... | " 30. | 4,000 " 5 " |
| | | | | | | | | " 30. | |
| | | | | | | | | Mar. 31. | |
| 432,750 | 578,750 | 172,750 | 715,266 | 718,100 | 461,366 | 6,447 | 10,251 | | |

E. F. STEPHENSON,

Crown Timber Agent.

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No. 20.

REPORT OF THE CROWN TIMBER AGENT AT NEW WESTMINSTER.

DEPARTMENT OF THE INTERIOR,
CROWN TIMBER OFFICE,
NEW WESTMINSTER, B.C., September 15, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to submit herewith my annual report for the twelve months ending June 30, 1904.

The receipts of this agency for the fiscal year ending June 30, 1904, amounted to \$98,700.62.

I also inclose schedule of mills situated in the Dominion railway belt in the province of British Columbia, which gives the usual statistics respecting the timber trade.

There has been quite a falling-off in the collections for royalty as compared with last year, owing to the dullness of the trade in the North-west and Manitoba, but I anticipate greater activity in the near future, as the magnificent wheat crop in these provinces should result in the trade in these quarters being materially increased. The decrease in the collections for royalty can also be accounted for by the fact that mill owners here are operating more extensively on lands held by them from the provincial government than on those held under Dominion license.

The export trade to foreign countries during the past year has not been as satisfactory as was expected.

We have been in considerable danger this year from forest fires, owing to the excessively dry, hot summer we have had. I do not anticipate that any serious damage has been done to timber lands within the railway belt, owing to the careful and efficient manner in which the fire wardens have discharged their duties. I would, however, urge that the provincial government be asked to pass more stringent laws concerning the setting out of fires, and that a close season be proclaimed, during which time, it shall be illegal to set out fires for any purpose, unless a permit shall have been first obtained, said permit to be issued by the officer in charge of the district where such fire is intended to be set out. The fire warden would then be able to look after the fire, and if necessary, prevent it from spreading. The preservation of our timber in this province is of the utmost importance, and every means possible should be taken to prevent the careless and wanton destruction often caused by irresponsible persons.

All of which is respectfully submitted.

I have the honour to be, sir,

Your obedient servant,

JAMES LEAMY,

Crown Timber Agent.

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STATEMENT of Receipts of New Westminster Crown Timber Agency for the Fiscal
Year ending June 30, 1904.

| Month. | Ground Rent. | Royalty. | Permit Dues. | Seizure Dues. | Total. |
|--|-----------------|-----------|-----------------|------------------|-----------|
| 1903. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| July..... | 181 45 | 5,720 95 | 112 35 | | 6,014 75 |
| August..... | 279 01 | 960 20 | 17 75 | | 1,256 96 |
| September..... | 0 08 | | 176 90 | 1,470 60 | 1,647 58 |
| October..... | 1 40 | 5,485 83 | 63 75 | | 5,550 98 |
| November..... | 13 35 | 1,018 18 | 57 50 | | 1,089 03 |
| December..... | 41 22 | 835 71 | 20 95 | | 897 88 |
| 1904. | | | | | |
| January..... | 8 10 | 2,843 59 | 195 76 | | 3,047 45 |
| February..... | 7 39 | 123 09 | 50 50 | | 180 98 |
| March..... | 11 49 | 312 30 | 317 25 | | 641 04 |
| April..... | 802 40 | 203 95 | 2 75 | | 1,009 10 |
| May..... | 2,303 51 | 193 99 | 731 81 | | 3,229 31 |
| June..... | 4,242 49 | 758 77 | 9 41 | | 5,010 67 |
| | 7,891 89 | 18,456 56 | 1,756 68 | 1,470 60 | 29,575 73 |
| Payments received at Head Office on account of this agency..... | | | | | 69,124 89 |
| Grand total..... | | | | | 98,700 62 |

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List of Mills operating in Dominion Railway Belt of British Columbia and Statement showing Quantity of Timber manufactured during fiscal year ended June 30, 1904.

| Name of Owner. | Where Situated. | Capacity of Mill. | Power. | Operating on Limit No. | Locality of Limit. | Quantity of lumber manufac- | | Quantity of lumber sold from quantity manufactured, and quantity on hand from previous year. | | Quantity of lumber on hand. |
|------------------------------------|-----------------|-------------------|--------|--------------------------|-------------------------------|-----------------------------|-----------|--|-----------|-----------------------------|
| | | | | | | Ft. | Ft. | Ft. | Ft. | |
| J. R. Reilly & Co. | Ottertail | 70,000 | Steam | 5 | Ottertail | | 1,232,804 | 1,232,804 | 367,196 | |
| W. C. Wells | Paliser | 30,000 | " | 3 and 29 | Beaver Foot and Kicking Horse | | 3,117,481 | 3,117,481 | 1,170,356 | |
| Columbia River Lumber Co. | Golden | 40,000 | " | 258, 257, 278, 231 | Columbia River | 3,060,800 | 3,177,908 | 3,177,908 | | |
| " | Beaver | 100,000 | " | 15 and 16 | " | 4,270,336 | 3,185,222 | 3,185,222 | 1,761,755 | |
| " | Kualt | 40,000 | " | 250, 71, 72, 73, 45, 242 | Shuswap | 2,567,456 | 2,384,013 | 2,384,013 | 625,349 | |
| " | Carlin | 15,000 | " | 239 | " | 747,235 | 720,976 | 720,976 | 493,137 | |
| Yale Columbia Lumber Co. | Nakusp | 30,000 | 114 | | Columbia River | | | | | |
| Empire Lumber Co. | Revelstoke | 30,000 | " | 112, 113, 123, 207, 249 | " | 6,040,878 | 3,538,541 | 3,538,541 | 2,502,337 | |
| " | Comaplex | 50,000 | " | Not operating. | " | | | | | |
| " | Wigwam | *30,000 | " | 118 | " | 623,580 | | | | |
| Revelstoke Lumber Co. | Big Eddy | 40,000 | " | Not operating. | " | | | | | |
| Ashcroft Water, Elec. and Imp. Co. | Kamloops | 50,000 | " | 240, 263 | Shuswap Lake | 477,000 | 683,000 | 683,000 | 966,412 | |
| Harrison River Mills T. and T. Co. | Harrison River | 75,000 | " | 63, 254, 248 | Harrison Lake | 1,384,693 | 702,375 | 702,375 | 3,200,142 | |
| E. H. Heaps & Co. | Ruskin | 25,000 | " | 185, 96, 33 | Slave River and Lake | 1,127,876 | 1,061,888 | 1,061,888 | 527,455 | |
| " | Cedar Cove | 100,000 | " | Not operating. | " | | | | | |
| North Pacific Lumber Co. | Barnet | 120,000 | " | " | Chilliwack River | | | | | |
| Brunette Saw Mill Co. | Sapperton | 75,000 | " | 33, blk 2, 138 | Slave River and Lake | | | | | |
| B. C. Mills Timber and Trading Co. | New Westminster | 90,000 | " | Not operating. | Mud Bay | 914,847 | 914,847 | | | |
| " | Vancouver | 225,000 | " | " | " | | | | | |
| Grant & Kerr | Ladner | 25,000 | " | 234 | " and Slave Lake | 335,560 | | | 335,560 | |
| Pacific Coast Lumber Co. | Vancouver | 125,000 | " | Not operating. | Coquitlam River | | | | | |
| Hastings Shingle Manufacturing Co. | " | *125,000 | " | 82 | Port Moody | | | | | |
| Canadian Pacific Lumber Co. | Port Moody | 75,000 | " | 111 | Coquitlam River | | | | | |
| G. E. Farrer | Vancouver | No mill. | " | 269 | North Arm, Burrard Inlet. | | | | | |
| K. Mikuni | " | " | " | 246 | " | | | | | |
| Thos. Allen | Sapperton | " | " | 236 | Pitt Lake | 23,300 | 25,000 | 25,000 | 24,000 | |
| Vancouver Power Co. | Vancouver | " | " | O | Burrard Inlet | 268,233 | 268,233 | 268,233 | | |
| West Coast Timber Co. | " | " | " | Not operating. | " | | | | | |

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| | | | | | | | | | |
|--------------------------|------------------|---------------|-------------|---------------------|---------------------------|---------------------------|------------|------------|------------|
| W. H. Pratt | Revelstoke | " | | Not operating | 64 | Greeley Creek | | | |
| Big Bend Lumber Co. | Arrowhead | 100,000 | Steam | Not operating | Columbia River | Columbia River | | | |
| A. McMillan | " | 125,000 | " | 333 and 335 ..... | " ..... | " ..... | ..... | ..... | ..... |
| Okanagan Lumber Co. | Enderby | 50,000 | " | Not operating | Spillamacheen River | Spillamacheen River ..... | ..... | ..... | ..... |
| J. C. Shields | Amis | *70,000 | " | " | Shuswap Lake | Shuswap Lake ..... | ..... | ..... | ..... |
| | | | | | | | 22,710,222 | 18,776,418 | 11,973,039 |

* Shingles.

| | March 30. | June 30. |
|---------------------|-----------|----------|
| Big Bend Lumber Co. | 4 | 223 |
| A. McMillan | ..... | ..... |
| Okanagan Lumber Co. | | |
| J. C. Shields. | | |
| - | 6,395 | 3,766 |
| | 7,347 | 62,060 |
| | 6,480 | 62,060 |
| | 1,282,617 | 656,007 |
| | 728,350 | |

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No. 21.

REPORT OF THE CROWN TIMBER AGENT AT CALGARY.

DEPARTMENT OF THE INTERIOR,

CROWN TIMBER OFFICE,

CALGARY, August 15, 1904.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to inclose herewith the following statement for the twelve months ended June 30, 1904 :—

Schedule 'A.'—Statement of receipts on account of Crown timber, covering the period referred to, amounting to \$31,495.46.

Schedule 'B.'—General office work.

Schedule 'C.'—Showing the saw-mills within the Crown timber agency in operation under government license to June 30, 1904.

The lumber business is in a very flourishing condition. It has been estimated by Mr. Forest Ranger Margach that about 20,000,000 feet of lumber has been brought in from British Columbia, about 11,727,696 feet manufactured in the Calgary district, and only about 60,000 feet reported through this port as having been imported from the United States. However, this does not represent the total quantity imported into Alberta as firms located in the state of Washington have representatives on the road selling their lumber, which I believe is passed through the customs ports on the boundary. Lumber dealers have very little to say about the quantity purchased outside of the lumber association.

Of the quantity manufactured in this district, 2,500,000 feet were the output of portable mills manufactured for settlers under permits; the balance from logs cut on the different timber berths and lands purchased from railway companies. Common lumber is retailing at \$19 per M.

I was glad to hear from Mr. Margach that there were no forest fires during the year, but I regret to say that there has been a very bad fire in the timber along the Crow's Nest Pass Railway in the vicinity of Blairmore during the last month.

I am, sir, your obedient servant,

J. R. SUTHERLAND,

Crown Timber Agent.

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CALGARY CROWN TIMBER AGENCY.

SCHEDULE A.

STATEMENT of receipts on account of Crown Timber for the year ended the
30th June, 1904.

| | Dominion Lands. |
|------------------|--------------------|
| 1903. | \$ cts. |
| July..... | 1,415 36 |
| August..... | 344 16 |
| September..... | 67 45 |
| October..... | 1,388 10 |
| November..... | 337 46 |
| December..... | 386 42 |
| 1904. | |
| January..... | 1,976 29 |
| February..... | 686 57 |
| March..... | 227 85 |
| April..... | 782 22 |
| May..... | 1,409 28 |
| June..... | 236 89 |
| Head Office..... | 9,258 05 |
| | 22,237 41 |
| | 31,495 46 |

SCHEDULE B.

GENERAL Office Return of the Calgary Crown Timber Agency for the year ending
30th June, 1904.

| Name. | Number. | Increase. | Remarks. |
|---|---------|-----------|---------------------------|
| Letters written..... | 14,550 | 6,738 | Including Dominion Lands. |
| Letters received..... | 23,571 | 9,657 | " " " |
| Permits issued subject to dues..... | 38 | 8 | " " " |
| Free permits issued..... | 677 | 238 | |
| Mill returns received and verified..... | 41 | | |

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SCHEDULE C.
SHOWING the Saw-mills in the Calgary Crown Timber Agency operating under Government Licenses, for the year ending June 30, 1904.

| Number. | Name of Owner or Assignee. | Mill Where Situated. | Kind of Power. | No. of Horse Power. | Commenced Operations. | Kind of Timber. | Logs, Cut at | Logs on hand, June 30, 1903. Manu- factured and sold since June 30, 1903. Balance on hand date of last return. | Shingles. | Date of last return. | No. of Returns received. | Remarks. |
|---------|---|-------------------------|----------------|---------------------|-----------------------|--------------------------------------|-----------------|---|--|-------------------------|--------------------------|----------------------|
| 1 | Hon. Peter McLaren... | Mill Creek.... | Water | 20 | 1882 | Spruce and Fir | Mill Creek.... | On hand June 30, 1903.. Manufactured..... Nil. Sold..... On hand March 31, 1904. 91,647 | Feet. 91,647 Nil. Nil. 91,647 | Mar. 31, 1904. | 3 | Timber berth 36. |
| 2 | Hon. Peter McLaren.... | Blairmore.... | Steam | 40 | 1882 | Spruce and Fir | Old Man's River | On hand June 30, 1903.. Manufactured..... Sold..... 4,448,722 3,326,190 On hand June 30, 1904.. 1,122,532 | 498,472 3,950,250 4,448,722 3,326,190 | June 30, 1904. | 4 | Timber berth 36a. |
| 3 | Eau Claire and Bow River Lumber Company, ... | Calgary | Steam | 65 | 1887 | Fir, Spruce, Cypress and Pine. | Spray River.... | On hand June 30, 1903.. Manufactured..... Sold..... 5,108,664 3,383,145 On hand June 30, 1904.. 1,685,519 | 1,821,117 3,197,547 5,108,664 3,383,145 | June 30, 1904. | 4 | Timber berth 417. |
| 4 | John Lineham..... | Okotoks ... | Steam | 50 | 1890 | Fir and Spruce | Sheep Creek.... | On hand June 30, 1903.. Manufactured..... Sold..... 1,541,321 1,225,529 On hand June 30, 1904.. 315,792 | 499,987 1,041,334 1,541,321 1,225,529 | June 30, 1904. | 5 | Timber berth 5 |

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| | | | | | | | | |
|---------------------------|--------------------------------|---------------------|-------------------------|--|--|---|----------------|------------------------|
| 5 Wm. Smibert..... | Cypress Hills. | Spruce | Cypress Hills, 2-8-3-5. | On hand June 30, 1903.. Manufactured..... Sold..... On hand March 31, 1904. | 53,000 99,000 152,000 115,000 37,000 | " | Mar. 31, 1904. | 3 Timber berth 784. |
| 6 De Wolf and Carscadden. | Sec. 28, Tp. 9, R. 30, W. 4 M. | 1903 Fir and Spruce | W ½ 36-14-1, W. 5 M. | On hand June 30, 1903.. Manufactured | 255,019 166,112 | " | June 30, 1904. | 4 Timber berth 1086 |
| | | | | Sold..... On hand June 30, 1904.. | 421,131 265,732 155,399 | | | |
| 7 R. L. Findlay | N ½ 36-14-1-5. | 1902 Fir and Spruce | N ½ 36-14-1-5. | On hand June 30, 1903.. Manufactured..... Sold..... On hand Dec. 31, 1903.. | 205,532 16,943 222,475 222,475 Nil. | " | Dec. 31, 1903. | 2 Timber berth 984. |
| 8 Duncan McMillan | Red Deer Riv'r | 1903 Fir and Spruce | TP. 32, R. 5, W. 5 M. | On hand June 30, 1903.. Manufactured..... Sold..... On hand March 31, 1904. | Nil. 883,700 883,700 Nil. | " | Mar. 31, 1904. | 3 Timber berth 252. |
| 9 W. & J. Rutherford..... | S. 10, T. 8, R. 3, W. 5 M. | 1903 Fir and Spruce | 10-8-3-5..... | On hand June 30, 1903.. Manufactured..... Sold..... On hand March 31, 1904. | Nil. 20,000 20,000 Nil. | " | Mar. 31, 1904. | 2 Timber berth 1027 |
| 10 W. D. Lineham..... | High River... | 1900 Fir and Spruce | High River..... | On hand June 30, 1903.. Manufactured..... Sold..... On hand Dec. 31, 1903.. | Nil. 632,159 484,212 147,947 | " | Dec. 31, 1903. | 2 Timber berth 579. |

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SCHEDULE C.—Showing the Saw-mills in the Calgary Crown Timber Agency, &c.—*Concluded.*

| Number. | Name of Owner or Assignee. | Where Situated. | Kind of Power. | No. of Horse Power. | Commenced Operations. | Kind of Timber. | Logs Cut at | Logs on hand, June 30, 1903. Manu- factured and sold since June 30, 1903. Balance on hand date of last return. | Shingles. | Date of last return. | No. of Returns received. | Remarks. |
|---------|----------------------------------|-----------------|-------------------------|---------------------|-----------------------|--------------------|-----------------|---|-----------|-------------------------|--------------------------|----------------------|
| 11 | M. Otterbine..... | Didsbury..... | Steam Port- able. | ..... | 1902 | ..... | ..... | Feet. On hand June 30, 1903.. 45,707 Manufactured..... 338,851 Sold..... 384,558 240,156 On hand June 30, 1904.. 135,402 | Nil. | June 30, 1904. | 4 | Timber berth 1021 |
| 12 | G. A. Love..... | Red Deer..... | Steam | ..... | 1903 | ..... | ..... | Nil. On hand June 30, 1903.. 795,000 Manufactured..... 795,000 Sold..... 795,000 On hand June 30, 1904.. Nil | " | June 30, 1904. | ... | Timber ber r |
| 13 | W. D. Lineham..... | High River.... | Steam | | 1903 | | High River..... | Nil. On hand June 30, 1903.. 580,800 Manufactured..... 349,399 Sold..... 231,401 On hand June 30, 1904.. 231,401 | " | June 30, 1904. | 1 | Timber berth 1124 |

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No. 22.

REPORT OF THE CROWN TIMBER AGENT AT EDMONTON.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS OFFICE,
EDMONTON, ALTA., August 20, 1904.

The Commissioner of Dominion Lands,
Ottawa.

SIR,—I have the honour to inclose herewith Schedules 'A' and 'B,' relating to the work of the timber and mines branch of this agency for the year ending June 30, 1904.

I also inclose a list and the amount of the lumber sawn by the portable mills in the Edmonton district. The total amount cut in B.M. by berth owners was 10,161,175 feet, and for the settlers by the portable mills 6,325,000 feet, making the total cut of native lumber to be 16,486,175 feet.

I have the honour to be, sir, your obedient servant,

A. G. HARRISON,
Crown Timber Agent.

SCHEDULE A. -

STATEMENT of Receipts from Timber, Grazing, Hay and Mines at Edmonton Office for twelve month ending 30th June, 1904.

| Month. | Dominion Lands. | School Lands. |
|-------------------|--------------------|------------------|
| 1903. | \$ cts. | \$ cts. |
| July. | 454 27 | 143 40 |
| August. | 166 75 | 45 30 |
| September. | 69 52 | 0 60 |
| October. | 317 52 | 12 15 |
| November. | 662 85 | 33 45 |
| December. | 1,426 71 | 38 40 |
| 1904. | | |
| January. | 1,022 70 | 47 30 |
| February. | 1,404 81 | 45 27 |
| March. | 1,018 72 | 340 99 |
| April. | 460 61 | 101 45 |
| May. | 814 40 | 28 90 |
| June. | 601 82 | 48 42 |
| Head Office. | 8,420 68 | 885 63 |
| | 34,519 32 | |
| | 42,940 00 | |

Certified correct,
A. G. HARRISON,
Crown Timber Agent.

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SCHEDULE B.

RETURN of Saw-mills operating in Edmonton Crown Timber Agency under Government License during the year ending June 30, 1904.

| Name of Owner or Assignee. | Where situated. | Kind of Power. | Number of Horse Power. | Operations began. | Logs Cut on Limit. | Lumber Manufactured in Period. | Lumber Sold in Period. | Date of Last Return. | Kind of Timber. | Number of Returns made. |
|------------------------------------|-----------------------|----------------|------------------------|-------------------|--------------------|--------------------------------|------------------------|----------------------|-----------------|-------------------------|
| D. R. Fraser & Co | Edmonton | Steam | 150 | 1899 | 788 | 35,000 | 35,000 | June 30 1904. | Spruce | 21 |
| " | " | " | 150 | | 1,008 | | | " 30 | " | 7 |
| " | " | " | 150 | | 812 | | | " 30 | " | 4 |
| " | " | " | 150 | | 1,141 | | | " 30 | " | 2 |
| " | " | " | 150 | | 1,150 | | | " 30 | " | 2 |
| Johu Walter | Strathcona. | " | 150 | 1900 | 881 | | | " 30 | " | 14 |
| " | " | " | 150 | | 864 | | | " 30 | " | 16 |
| " | " | " | 150 | | 1,140 | | | " 30 | " | 2 |
| " | " | " | 150 | | 1,163 | | | " 30 | " | 1 |
| D. R. Fraser & Co. and John Walter | Edmonton & Strathcona | " | 100 & 150 | 1900 | 496 | 950,029 | 1,360,029 | " 30 | Spruce | 17 |
| " | " | " | 100 & 150 | 1900 | 9 bl 5 & 6 | 5,684,929 | 4,787,089 | " 30 | " | 18 |
| " | " | " | 100 & 150 | | 392 | | | " 30 | " | 13 |
| " | " | " | 100 & 150 | | 1,091 | | | " 30 | " | 3 |
| " | " | " | 100 & 150 | | 1,161 | | | " 30 | " | 1 |
| " | " | " | 100 & 150 | | 1,160 | | | " 30 | " | 1 |
| " | " | " | 100 & 150 | | 887 | | | " 30 | " | 1 |
| Dearing Implement Co. | Stony Plain. | " | | 1900 | | 640,903 | 435,259 | " 30 | Spruce | 12 |
| L. E. Benz. | Crooked Lake. | " | | 1900 | 860 | | 37,000 | " 30 | " | 15 |
| Foulger & Rowley | Ponoka | " | 100 | 1901 | 949 | 53,000 | 53,000 | " 30 | " | 9 |
| A. J. Eccles. | Spruce Grove | Steam | | 1901 | 923 | | 30,678 | June 30 1903. | Spruce | 9 |
| " | " | " | | | 1,030 | | | Dec 31 | " | 3 |
| Imeson & McPhee | " | Steam | | 1903 | 1,042 | 300,000 | 238,000 | June 30 1904. | " | 6 |
| J. A. Powell | Half Moon Lake. | " | | 1903 | 849 | 309,800 | 309,800 | June 30 Mar. 31 | " | 13 |
| W. S. Dwinell | " | " | | | 955 | | | June 30 | " | 11 |
| " | " | " | | | 962 | | | " 30 | " | 11 |

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SCHEDULE B.

RETURN of Saw-mills operating in Edmonton Crown Timber Agency under Government License during the year ending June 30, 1904.—*Concluded.*

| Name of Owner or Agency. | Where situated. | Kind of Power. | Number of Horse Power. | Operations began. | Logs cut on limit. | Lumber Manufactured in Period. | Lumber Sold in Period. | Date of last Return. | Kind of Timber. | Number of Returns made. |
|--------------------------|-----------------|----------------|------------------------|-------------------|--------------------|--------------------------------|------------------------|----------------------|-----------------|-------------------------|
| John Gentles..... | | | | | No. | B.M. | B.M. | 1904. | | 0 |
| John Fraser..... | | | | | 1,092 | | | | | 0 |
| D. E. Noyes & Sons..... | | | | | 1,095 | | | | | 1 |
| A. W. Fraser..... | | | | 1904 | 1,043 | 229,521 | 299,521 | June 30 | Spruce | 0 |
| Edmond Lyons..... | | | | | 1,109 | | | " 30 | | 2 |
| J. G. Edgar..... | | | | | 1,122 | | | | | 0 |
| J. H. Morris..... | | | | | 1,131 | | | June 30 | | 1 |
| Pollock & Young..... | | | | | 1,137 | | | " 30 | | 1 |
| | | | | | 1,149 | | | | | 1 |
| | | | | | 1,155 | | | | | 0 |
| Total..... | | | | | | 10,161,175 | 9,303,033 | | | 397 |

Certified correct.

A. G. HARRISON,
Crown Timber Agent.

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No. 23.

REPORT OF THE CROWN TIMBER AGENT AT PRINCE ALBERT.

DEPARTMENT OF THE INTERIOR,

DOMINION LANDS OFFICE,

PRINCE ALBERT, SASKATCHEWAN, July 11, 1904.

The Commissioner of Dominion Lands,
Ottawa, Ont.

SIR,—I have the honour to inclose herewith the following statements for the year ending June 30, 1904:—

Schedule 'A.'—Statement of receipts on account of Crown timber, grazing, mining and hay.

Schedule 'B.'—Statement showing saw-mills operating under government license.

Schedule 'C.'—Statement showing general work during the year.

Your obedient servant,

J. W. HANNON,

Crown Timber Agent.

SCHEDULE A.

STATEMENT of Receipts from Timber, Grazing and Hay Lands at the Crown Timber Office, Prince Albert, for the twelve months ending June 30, 1904.

| Month. | Dominion Lands. | School Lands. | Total. |
|-------------------------------|--------------------|------------------|-----------|
| 1903. | \$ cts. | \$ cts. | \$ cts. |
| July..... | 932 96 | 23 80 | 956 76 |
| August..... | 122 82 | | 122 82 |
| September..... | 654 39 | | 654 39 |
| October..... | 47 13 | | 47 13 |
| November..... | 2,735 46 | | 2,735 46 |
| December..... | 1,560 13 | | 1,560 13 |
| 1904. | | | |
| January..... | 1,821 74 | | 1,821 74 |
| February..... | 513 30 | | 531 30 |
| March..... | 1,435 77 | | 1,435 77 |
| April..... | 902 83 | 75 78 | 978 61 |
| May..... | 2,341 71 | 7 70 | 2,349 41 |
| June..... | 326 35 | 14 60 | 340 95 |
| Total..... | 13,394 59 | 121 88 | 13,516 47 |
| Collected at Head office..... | 25,660 75 | | |
| Grand total..... | 39,055 34 | 121 88 | 13,516 47 |

CROWN TIMBER OFFICE,
PRINCE ALBERT, July 11, 1904.

J. W. HANNON,
Crown Timber Agent.

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SCHEDULE B.

STATEMENT showing Saw-mills in the Prince Albert district operating under Government License, during the year ending June 30, 1904.

| Name of Owner. | Horse-power and kind. | Capacity per 12 hours. | Commenced operations. | Description of timber. | Where cut. | Quantity of lumber manufactured during the year. | Quantity of lumber sold. | Number of shingles manufactured during the year. | Number of shingles sold during the year. | Date of last return and total of returns made. |
|----------------------------|-----------------------|------------------------|-----------------------|------------------------|--------------------------------|--|--------------------------|--|--|--|
| James H. Sanderson..... | 225, Steam.. | 36,000 | 1888 | Spruce. | Limits north of Sturgeon Lake. | Feet. 3,051,121 | Feet. 2,863,143 | 478,333 | 425,333 | June 30, 1904. |
| Wm. Cowan & Co..... | 130, " .. | 30,000 | 1890 | " .. | Limits up Little Red river.. | 4,338,990 | 3,733,397 | 647,500 | 488,500 | " 30, 1904. |
| Shannon & Co..... | 35, " .. | 14,000 | 1899 | " .. | Limits up Little Red river.. | 2,286,724 | 1,156,217 | 116,300 | 116,300 | " 30, 1904. |
| The Telford Lumber Co..... | 264, " .. | 75,000 | 1902 | " .. | Limits on Sturgeon lake.... | 5,680,187 | 2,187,781 | 319,150 | 275,350 | " 30, 1904. |
| | | | | | | 15,357,022 | 9,840,538 | 1,561,283 | 1,305,483 | 180 |

J. W. HANNON,
*Crown Timber Agent.*CROWN TIMBER OFFICE,
PRINCE ALBERT, July 11, 1904.

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SCHEDULE C.

General return of the Crown timber office, Prince Albert, for the year ending June 30, 1904.

| | |
|---|-------|
| Timber permits issued. | 1,162 |
| Hay permits issued. | 90 |
| Timber seizures. | 51 |
| Free miners' certificates issued. | 2 |
| Mill returns received. | 180 |

J. W. HANNON,
Crown Timber Agent.

CROWN TIMBER OFFICE,
PRINCE ALBERT, July 11, 1904.

No. 24.

REPORT OF THE ORDNANCE AND ADMIRALTY LANDS BRANCH.

DEPARTMENT OF THE INTERIOR,
ORDNANCE AND ADMIRALTY LANDS BRANCH,
OTTAWA, July 25, 1904.

JAS. A. SMART, Esq.,
Deputy Minister of the Interior.

SIR,—I have the honour to submit the following report in relation to the work of this branch of the department during the fiscal year ended June 30, 1904.

The statements annexed are:—

(A.) Statement of sales made during the year ended June 30, 1904. Total, \$1,230.13.

A lot on the canal reserve at Burlington beach, Ontario, 50 feet by 89 feet, was sold for \$50.

The consideration money for five and one half lots in the city of Ottawa has been paid, and letters-patent have been issued in accordance with the terms of the original leases granted by the Imperial authorities.

The seigniorial rents payable on two lots in Sorel, P.Q., were commuted into a capitalized payment of \$132.58 and the lots patented.

(B.) Statement showing localities on account of which moneys have been received during the fiscal year. Total amount, \$30,494.34.

The contingent expenses of the branch for the corresponding period were \$1,078.10.

(C.) Statement showing the receipts, month by month, divided into principal, rent or interest, and fees.

(D.) Statement showing the amount due and remaining unpaid on June 30, 1904, in the several localities where ordnance lands are situated, classified as rent or interest and principal moneys. The total amount shown to be due is \$64,648.19, a decrease of \$26,299.50 when compared with last year. Of the amount remaining unpaid, \$52,000 is due by the city of Toronto for land purchased for the enlargement of the cattle market in that city.

A definite estimate of the work done in this branch cannot be formed, as the duties of the office require constant attendance to answer inquiries and make explanations, entailing searches and the examination of records, which create a large amount

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extra work. During the year 360 letters were received, 478 were written, and more than 1,000 statements of account mailed to tenants and purchasers in arrears; 17 assignments were examined and registered; 27 drafts of letters-patent were prepared, and upwards of 500 accounts now open with the respective purchasers and tenants of ordnance lands have been carefully kept.

I have the honour to be, sir,

Your obedient servant,

JAS. N. FERGUSON,

Clerk in Charge.

A.—STATEMENT of Sales made during the year ended June 30, 1904.

| Locality. | No of Lots Sold or Redeemed. | Amount. | Amount Received on Account. |
|-----------------------|------------------------------|----------|-----------------------------|
| | | \$ cts. | \$ cts. |
| Burlington Beach..... | 1 lot..... | 50 00 | 50 00 |
| Ottawa..... | 5½ lots redeemed..... | 1,047 55 | 1,047 55 |
| Sorel..... | 2 lots..... | 132 58 | 132 58 |
| Total..... | | 1,230 13 | 1,230 13 |

JAS. N. FERGUSON,

Clerk in Charge.

DEPARTMENT OF THE INTERIOR,

ORDNANCE AND ADMIRALTY LANDS BRANCH,

OTTAWA, July 25, 1904.

B.—STATEMENT showing the several localities on account of which moneys have been received during the fiscal year ending June 30, 1904.

| Locality. | Amount. | Locality. | Amount. |
|-----------------------|----------|--------------------------|-----------|
| | \$ cts. | | \$ cts. |
| Amherstburg..... | 2 00 | Brought forward..... | 2,553 96 |
| Beaver Harbour..... | 2 00 | Oromocto..... | 0 50 |
| Burlington Beach..... | 557 50 | Oxford..... | 0 60 |
| Charlotteville..... | 18 67 | Ottawa..... | 2,346 44 |
| Edmundston..... | 48 20 | Point Pelee..... | 945 95 |
| Elmslie..... | 19 40 | Prescott..... | 1 00 |
| Fort Erie..... | 61 70 | Quebec..... | 22,357 55 |
| Fort Cumberland..... | 55 00 | Presqu'Isle..... | 0 50 |
| Grenville..... | 2 20 | Sorel..... | 201 04 |
| Grand Falls..... | 350 41 | Sarnia..... | 40 00 |
| Kingston..... | 444 25 | Shelburne..... | 31 00 |
| Longueuil..... | 373 20 | St. Joseph's Island..... | 160 00 |
| Montreal..... | 1 00 | Toronto..... | 1,681 00 |
| Nepean..... | 589 43 | Wolford..... | 117 80 |
| Niagara..... | 20 00 | Registration fees..... | 57 00 |
| Owen Sound..... | 9 00 | | |
| Carried forward..... | 2,553 96 | Total..... | 30,494 34 |

JAS. N. FERGUSON,

Clerk in Charge.

DEPARTMENT OF THE INTERIOR,

ORDNANCE AND ADMIRALTY LANDS BRANCH,

OTTAWA, July 25, 1904.

SESSIONAL PAPER No. 25

C.—STATEMENT of receipts on account of Ordnance and Admiralty Lands for the fiscal year ending June 30, 1904.

| Date. | Fees. | Rent or Interest. | Principal. | Total. |
|----------------|---------|-------------------|------------|-----------|
| 1903. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| July..... | 8 00 | 664 82 | 260 00 | 932 82 |
| August..... | 1 38 | 18,583 26 | 378 38 | 18,963 02 |
| September..... | 6 62 | 186 71 | 42 00 | 235 33 |
| October..... | 12 00 | 219 63 | 132 25 | 363 88 |
| November..... | | 114 06 | 86 38 | 200 44 |
| December..... | | 151 00 | 55 00 | 206 00 |
| 1904. | | | | |
| January..... | 10 00 | 2,472 72 | 2,834 16 | 5,316 88 |
| February..... | 2 00 | 434 46 | 4 30 | 440 76 |
| March..... | 4 00 | 442 20 | 1,354 50 | 1,800 70 |
| April..... | 8 00 | 251 92 | 102 06 | 361 98 |
| May..... | | 214 18 | 93 40 | 307 58 |
| June..... | 5 00 | 1,165 92 | 194 03 | 1,364 95 |
| | 57 00 | 24,900 88 | 5,536 46 | 30,494 34 |

JAS. N. FERGUSON,
Clerk in Charge.

DEPARTMENT OF THE INTERIOR,
ORDNANCE AND ADMIRALTY LANDS BRANCH,
OTTAWA, July 25, 1904.

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D.—STATEMENT showing amount due and unpaid on account of instalments of Purchase Money, Rent or Interest to June 30, 1904.

| Locality. | Amount of instalments due and unpaid June 30, 1904. | Rent or Inter- est due and unpaid June 30, 1904. | Total. |
|----------------------|---|---|-----------|
| | \$ cts. | \$ cts. | \$ cts. |
| Beaver Harbour..... | | 2 00 | 2 00 |
| Carillon..... | | 4 20 | 4 20 |
| Chambly..... | 152 00 | 209 76 | 361 76 |
| Charlottetown..... | | 18 67 | 18 67 |
| Dalhousie..... | 23 00 | 4 14 | 27 14 |
| Edmundston..... | 196 06 | 85 16 | 281 22 |
| Fort Cumberland..... | | 123 00 | 123 00 |
| Fort Erie..... | 174 00 | 25 80 | 209 80 |
| Grand Falls..... | 1,079 16 | 341 32 | 1,420 48 |
| Grenville..... | | 2 20 | 2 20 |
| Kingston..... | 50 96 | 42 84 | 93 80 |
| Longueuil..... | | 125 00 | 125 00 |
| Marlborough..... | | 54 00 | 54 00 |
| Montreal..... | | 1 00 | 1 00 |
| Nepean..... | 2,679 00 | 271 98 | 2,950 98 |
| Niagara..... | 1,188 00 | 237 60 | 1,425 60 |
| Oromocto..... | | 0 25 | 0 25 |
| Ottawa..... | | 4,300 31 | 4,300 31 |
| Owen Sound..... | | 99 50 | 99 50 |
| Oxford..... | | 26 60 | 26 60 |
| Point Pelee..... | | 1 00 | 1 00 |
| Presqu'Isle..... | | 0 50 | 0 50 |
| Pomroy Bridge..... | | 5 75 | 5 75 |
| Queenston..... | | 1 00 | 1 00 |
| Quebec..... | | 830 00 | 830 00 |
| Shelburne..... | | 1 00 | 1 00 |
| St. Croix..... | | 1 00 | 1 00 |
| Sorel..... | | 229 43 | 229 43 |
| Toronto..... | 52,000 00 | | 52,000 00 |
| Wolford..... | | 51 00 | 51 00 |
| Total..... | 24,575 18 | 7,106 01 | 64,648 19 |

JAS. N. FERGUSON,
Clerk in Charge.

DEPARTMENT OF THE INTERIOR,
ORDNANCE AND ADMIRALTY LANDS BRANCH,
OTTAWA, July 25, 1904.

SESSIONAL PAPER No. 25

No. 25.

REPORT OF THE LAND PATENTS BRANCH.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,

OTTAWA, October 17, 1904.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to inclose herewith the several statements hereinafter enumerated, which are necessary to illustrate the work affecting this branch of the department required in connection with the preparation of the annual report of the Department of the Interior for the fiscal year ended June 30 last.

By reference to the statement marked A., showing the number of homestead entries made during the year at the several land agencies, it will be found that fewer numbers were made than during the preceding year. This state of affairs may, I think, be accounted for very largely by the fact that during last spring the rivers and streams in the west, owing to the wet season and the large quantity of melting snow, had to a great extent overflowed their banks, making the prairies one vast slough, and preventing traffic, so that intending homesteaders were not able to reach the part of the country they had intended to make their future homes in.

There were during the year, however, entries made to the number of 26,073, representing an increase of population of 68,381 souls as compared with 31,383 and representing 89,807 souls during the preceding year.

By the numbers of the entries made, according to returns by agencies, the districts which are favourite localities appear to be Regina, Yorkton, Edmonton and Calgary.

Statement B. is an abstract of letters-patent covering Dominion lands situated in Manitoba, the North-west Territories, British Columbia and the Yukon Territory, issued from this department during the fiscal year ended June 30 last, compared with the fiscal year ended June 30, 1903. From this statement it will be observed that 6,890 patents were issued, covering an area of 2,982,579 acres, for the year just past, while for the same period during the year 1903 there were 7,349 patents issued, covering an area of 3,266,388 acres, a decrease in both the number of patents issued and the area covered thereby. This decrease can be accounted for by the diminished area patented to railway companies, and for land upon which half-breed scrip had previously been located.

There still remains outstanding 61,848 acres of land located under scrip which issued of late years in satisfaction of half-breed claims. This area is mostly in the hands of half-breed minors, who have disposed of their claims, but until they have attained their majority they are not in a position to execute proper assignments.

Statement C. shows the number of acres of swamp lands in Manitoba transferred by Order in Council to the province of Manitoba up to June 30, 1904.

Although no additional lands have been transferred to the province since my last report, it would naturally be supposed that the area would be the same as then published, but, instead of this being the case, a decreased area is shown by this year's statement, which is explained in a note attached to this statement. The difference being a technical one only, the lands, all being swamp lands, were passed to the province as such, no note being taken of the difference in the authority which gives to

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Canada the right to deal with lands of that nature lying within the boundaries of the province.

There have been no reports from the swamp lands commissioners of lands examined by them up to June 30 last, and, consequently, there can have been no additional transfers made of lands found to be swamp lands within the meaning of the Swamp Lands Act.

The remaining statements do not call for any comment, they being of a routine nature, and explaining themselves.

Since the date of my last report, I am sorry to say that a familiar face is missed from the branch which we will see no more, of one who had served the department faithfully and well for upwards of a quarter of a century. I allude to the late Mr. R. Rauscher, D.L.S., who died on February 18, 1904.

I am pleased to report that during the year the work of the branch has been well kept up, the issue of patents being up to date.

The statements in connection with this report are marked and designated as follows:—

A.—Showing the number of homestead entries made during the fiscal year ended June 30, 1904, compared with the corresponding period of the previous year.

B.—Abstract of letters-patent covering Dominion lands situate in Manitoba, the North-west Territories, British Columbia and the Yukon Territory, issued from the Department of the Interior during the fiscal year ended June 30, 1904, compared with the fiscal year ended June 30, 1903.

C.—Statement showing the number of acres of swamp lands in Manitoba transferred by Order in Council to the province of Manitoba up to June 30, 1904.

D.—Statement showing the number of patents forwarded to the several registrars of the land registration districts in the North-west Territories, and the number of notifications mailed to patentees during the year ended June 30, 1904.

E.—Statement showing the number of entries cancelled during the year ended June 30, 1904, also the year in which the entries were made.

F.—Statement showing the number of deeds of transfer recorded at head office during the year ended June 30, 1904.

G.—Statement of entries affecting Dominion lands which were made at head office during the fiscal year ended June 30, 1904.

Your obedient servant,

WM. M. GOODEVE,

Chief Clerk of Patents.

SESSIONAL PAPER No. 25

A.—STATEMENT showing the number of Homestead entries made during the fiscal year ended June 30, 1904, compared with the corresponding period of the previous year.

| Agency. | Fiscal Year ending June 30, 1903. | Fiscal Year ending June 30, 1904. | Increase. | Decrease. | Net Decrease. |
|----------------------|--|--|-----------|-----------|------------------|
| Alameda..... | 2,808 | 1,665 | ..... | 1,143 | |
| Battleford..... | 1,198 | 1,772 | 594 | ..... |  |
| Brandon..... | 1,307 | 489 | ..... | 818 | |
| Calgary..... | 1,911 | 2,664 | 753 | ..... |  |
| Dauphin..... | 454 | 388 | ..... | 66 | |
| Edmonton..... | 3,160 | 2,581 | ..... | 579 | |
| Kamloops..... | 91 | 180 | 89 | ..... |  |
| Lethbridge..... | 1,532 | 1,722 | 190 | ..... |  |
| Minnedosa..... | 433 | 262 | ..... | 171 | |
| New Westminster..... | 29 | 28 | ..... | 1 | |
| Prince Albert..... | 2,888 | 1,634 | ..... | 1,254 | |
| Regina..... | 7,259 | 6,595 | ..... | 664 | |
| Red Deer..... | 1,466 | 1,234 | ..... | 232 | |
| Winnipeg..... | 1,059 | 866 | ..... | 193 | |
| Yorkton..... | 5,788 | 3,993 | ..... | 1,795 | |
| Total..... | 31,383 | 26,073 | 1,606 | 6,916 | 5,310 |

Representing in 1903..... 89,807 souls.
 “ “ 1904..... 68,381 “

WM. M. GOODEVE,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
 LAND PATENTS BRANCH,
 OTTAWA, October 17, 1904.

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B.—ABSTRACT of Letters Patent covering Dominion Lands situate in Manitoba, the North-west Territories, British Columbia and the Yukon Territory, issued from the Department of the Interior during the Fiscal Year ending June 30, 1904, as compared with the Fiscal Year ending June 30, 1903.

| No. | Nature of Grant. | FROM JULY, 1, 1903, TO JUNE 30, 1904. | | FROM JULY 1, 1902, TO JUNE 30, 1903. | |
|-------------|--|--|-----------|---|-----------|
| | | Patents. | Acres. | Patents. | Acres. |
| 1 | British Columbia homesteads..... | 58 | 8,094 | 94 | 13,388 |
| 2 | British Columbia sales..... | 37 | 4,484 | 37 | 4,686 |
| 3 | Coal lands sales..... | 3 | 368 | 10 | 1,627 |
| 4 | Commutation grants..... | 16 | 858 | 14 | 1,121 |
| 5 | Homesteads..... | 4,084 | 647,448 | 3,574 | 564,730 |
| 6 | Hudson's Bay Co..... | | | 30 | 44,020 |
| 7 | Leases..... | 1 | 153 | | |
| 8 | License of occupation..... | 1 | | | |
| 9 | Manitoba Act grants..... | 10 | 420 | 4 | 418 |
| 10 | Military Bounty grants..... | 3 | 480 | | |
| 11 | Military homesteads..... | 8 | 2,369 | 9 | 2,780 |
| 12 | Mineral rights..... | 9 | 2,202 | 23 | 4,462 |
| 13 | Mining lands sales..... | 12 | 337 | 3 | 190 |
| 14 | Northwest half-breed grants..... | 435 | 85,410 | 923 | 202,429 |
| 15 | Northwest Mounted Police grants..... | 2 | 320 | | |
| 16 | Parish sales..... | 9 | 1,195 | 21 | 3,009 |
| 17 | Quit claim special grants..... | 26 | | | |
| Railways:— | | | | | |
| 18 | Alberta Railway and Coal Co..... | 8 | 44,983 | 2 | 969 |
| 19 | Calgary and Edmonton Railway Co..... | 2 | 323 | 199 | 136,429 |
| 20 | Canadian Northern Railway Co..... | 67 | 12,201 | 38 | 4,991 |
| 21 | Canadian Pacific Railway grants..... | 806 | 1,709,277 | 665 | 1,200,616 |
| 22 | Canadian Pacific Railway grants (Souris Branch)..... | 31 | 74,795 | | |
| 23 | Canadian Pacific Railway nominees..... | 3 | 960 | 10 | 1,764 |
| 24 | Canadian Pacific Railway roadbed and station grounds..... | 34 | 689 | 107 | 9,039 |
| 25 | Great North-west Central Railway Co..... | | | 94 | 325,771 |
| 26 | Manitoba and North-western Railway Co..... | 47 | 43,810 | 273 | 370,260 |
| 27 | Manitoba South-western Colonization Railway Co..... | 420 | 106,592 | 269 | 61,234 |
| 28 | Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co..... | 55 | 23,599 | 259 | 214,444 |
| 29 | Saskatchewan and Okanagan Railway Co..... | | | 1 | 3 |
| 30 | Saskatchewan and Western Railway Co..... | | | 3 | 17 |
| 31 | Shuswap and Okanagan Railway Co..... | 1 | | | |
| 32 | Sales..... | 488 | 194,610 | 416 | 79,233 |
| 33 | School lands sales..... | 86 | 11,143 | 94 | 12,646 |
| 34 | Special grants..... | 54 | 2,418 | 57 | 3,335 |
| 35 | University of Manitoba..... | | | 1 | 160 |
| 36 | Yukon Territory sales..... | 66 | 2,602 | 112 | 2,610 |
| 37 | Yukon Territory specials..... | 8 | 439 | 7 | 7 |
| Totals..... | | 6,890 | 2,982,579 | 7,349 | 3,266,388 |

WM. M. GOODEVE,

Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, October 17, 1904.

SESSIONAL PAPER No. 25

C.—STATEMENT showing the number of acres of swamp lands in Manitoba transferred by Order in Council to the province of Manitoba up to June 30, 1903.

| Date of Order in Council. | Acres. |
|----------------------------|--------------|
| April 16, 1888. | 52,600'00 |
| June 7, 1888. | 60,335'60 |
| August 25, 1891. | 105,635'41 |
| December 7, 1891. | 36,479'00 |
| April 22, 1893. | 69,680'00 |
| October 21, 1893. | 13,040'00 |
| “ 4, 1895. | 50,602'72 |
| “ 31, 1896. | 53,520'19 |
| “ 31, 1896. | 6,960'00 |
| November 10, 1896. | 137,016'75 |
| December 1, 1896. | 117,250'09 |
| June 18, 1897. | 151,985'39 |
| June 27, 1898. | 3,120'00 |
| December 1, 1899. | 148,811'39 |
| February 17, 1899. | 48,470'00 |
| August 18, 1899. | |
| May 26, 1900. | |
| April 26, 1902. | 20,744'01 |
| February 3, 1903. | 27,764'85 |
| “ 3, 1903. | 84,659'48 |
| Total. | 1,118,674'88 |

WM. M. GOODEVE,

Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, October 17, 1904.

NOTE.—The report of the land patents branch incorporated in the departmental report for 1902-3 sets out in 'Statement C.' on page 120 the acreage of swamp lands transferred to the Manitoba government as 1,384,254'47 acres. The difference between this total and the total shown in accompanying statement for 1903-4 is. 195,579'59

which is accounted for as follows:—

Area given at date April 21, 1884, of lands transferred to the Manitoba government prior to the passing of the Swamp Lands Act, July 20, 1885, and therefore not swamp lands within the meaning of that Act 104,740'00

Area of unsurveyed land not yet transferred to the province, but included in the 175,499'48 under date of February 3, 1903. 90,840'00

195,580'00

Error in total under date of August 25, 1891, quoted as 105,635'00 should be 105,635'41. '41

195,579'59

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D.—STATEMENT showing the number of patents forwarded to the several Registrars of the Land Registration Districts of the Northwest Territories, and the number of notifications mailed to patentees during the year ending June 30, 1094.

| Registration Districts. | Number of patents sent to registrars. | Number of notifications mailed to patentees. |
|-------------------------|---------------------------------------|--|
| Assiniboia..... | 2,485 | 2,382 |
| East Saskatchewan..... | 405 | 465 |
| West Saskatchewan..... | 153 | 103 |
| North Alberta..... | 1,025 | 1,076 |
| South Alberta..... | 667 | 669 |
| Yukon..... | 69 | 98 |
| Totals..... | 4,804 | 4,793 |

WM. M. GOODEVE,

Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, October 17, 1904.

E.—STATEMENT showing the number of entries cancelled during the year ending June 30, 1904, also the year in which such entries were made.

| Year. | Homesteads | Preemption. | Time Sales. | Pre.-Sales. | Sales. | Special Grants. |
|-----------|------------|-------------|-------------|-------------|--------|-----------------|
| 1875..... | 1 | | | | | |
| 1879..... | | | 1 | | | |
| 1880..... | | | 5 | | | |
| 1881..... | 1 | | | | | |
| 1882..... | 11 | 16 | | | | |
| 1883..... | 18 | 27 | | | | |
| 1884..... | 14 | 13 | | 1 | 2 | |
| 1885..... | 6 | 8 | | 1 | | |
| 1886..... | 12 | 10 | | | | |
| 1887..... | 3 | 2 | | | | |
| 1888..... | 7 | 4 | | | 1 | |
| 1889..... | 16 | 16 | | | 2 | |
| 1890..... | 90 | | 1 | | | |
| 1891..... | 15 | | | | 1 | |
| 1892..... | 23 | | | | 4 | |
| 1893..... | 19 | | | | | |
| 1894..... | 12 | | | | | |
| 1895..... | 7 | | 1 | | | |
| 1896..... | 11 | | | | 1 | |
| 1897..... | 13 | | | | | |
| 1898..... | 26 | | | | | |
| 1899..... | 69 | | | | | |
| 1900..... | 158 | | 1 | 1 | | |
| 1901..... | 426 | | | | | 1 |
| 1902..... | 3,340 | | | | | |
| 1903..... | 4,125 | | 5 | | | |
| 1904..... | 279 | | | | | |
| | 8,702 | 96 | 14 | 3 | 11 | 1 |

WM. M. GOODEVE,

Chief Clerk.

DEPARTMENT OF THE INTERIOR,
LAND PATENTS BRANCH,
OTTAWA, October 17, 1904.

SESSIONAL PAPER No. 25

F.—STATEMENT showing the number of deeds of transfer recorded at head office during the year ended June 30, 1904.

Number of deeds registered. 963
 Fees received in connection therewith. \$1,996

WM. M. GOODEVE,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
 LAND PATENTS BRANCH,
 OTTAWA, October 17, 1904.

G.—STATEMENT of Entries affecting Dominion Lands which were made at Head Office during fiscal year ending June 30, 1904.

| Name of Grant. | Number. | Acres. |
|--|---------|--------------|
| Special grants. | 56 | 2,230 14 |
| Alberta Railway and Coal Company. | 4 | 22,978 70 |
| Calgary and Edmonton Railway Company. | 1 | 320 00 |
| Canadian Northern Railway Company. | 56 | 11,460 14 |
| Canadian Pacific Railway Company (main line). | 801 | 1,649,415 14 |
| " " (Souris branch). | 33 | 75,335 67 |
| Great Northwest Central Railway Company. | 1 | 640 00 |
| Manitoba and Northwestern Railway Company. | 46 | 226,785 24 |
| Manitoba Southwestern Colonization Railway Company. | 417 | 105,412 59 |
| Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company. | 56 | 24,239 38 |
| Railway right of way. | 46 | 861 61 |
| Totals. | 1,517 | 2,119,678 93 |

WM. M. GOODEVE,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
 LAND PATENTS BRANCH,
 OTTAWA, October 17, 1904.

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No. 26.

REPORT OF THE ACCOUNTANT.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,

OTTAWA, Sept. 26, 1904.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit statements of revenue collected from various sources during the fiscal year 1903-4, as follows :—

| | |
|--|----------------|
| A. Dominion lands, including Yukon Territory.. . . | \$1,681,824 70 |
| B. Ordnance lands.. . . . | 30,494 34 |
| C. School lands.. . . . | 233,769 62 |
| D. Registration fees.. . . . | 109,233 73 |
| E. Fines and forfeitures, N.W.T.. . . . | 5,911 92 |
| F. Casual revenue.. . . . | 3,402 94 |
| G. Seed grain re-payments.. . . . | 26,122 30 |
| | <hr/> |
| | \$2,090,759 55 |

A statement of the revenue on account of Dominion lands (marked H.) shows the receipts monthly, classified under sub-heads. Statement (marked I.) shows a comparison between the receipts on account of Dominion lands for 1903-4, as compared with the revenue of the previous fiscal year.

Your obedient servant,

CHAS. H. BEDDOE,

Accountant.

SESSIONAL PAPER No. 25

A.—DOMINION Lands Revenue (Cash and Scrip), for fiscal year ended June 30, 1904.

| Agencies, &c. | Cash. | Scrip. | Total. |
|--|------------|------------|------------|
| <i>Yukon Territory.</i> | \$ cts. | \$ cts. | \$ cts. |
| Sales of lands | 12,678 17 | | |
| Rental of lands | 19,504 90 | | |
| Survey fees | 1,060 00 | | |
| Map sales, office fees, &c. | 538 00 | | |
| Timber dues | 38,807 90 | | |
| Hay lands | 467 55 | | |
| Mining fees | 145,391 14 | | |
| Export tax on gold | 272,217 96 | | |
| Hydraulic leases | 10,383 11 | | |
| Dredging leases | 640 16 | | |
| Free miners' certificates | 62,190 10 | | |
| Free certificates for export of gold | 27 00 | | |
| Coal lands | 5 50 | | |
| Royalty on water sold | 139 75 | | |
| Miscellaneous revenue | 885 50 | | |
| Yukon total | 564,936 74 | | 564,936 74 |
| <i>Dominion lands revenue.</i> | | | |
| Alameda | 26,007 18 | 1,496 90 | 27,504 08 |
| Battleford | 17,105 08 | 306 66 | 17,411 74 |
| Brandon | 11,647 29 | 5,175 06 | 16,822 35 |
| Calgary | 41,365 87 | 15,346 11 | 56,711 98 |
| Dauphin | 5,330 58 | 326 57 | 5,657 15 |
| Edmonton | 36,326 50 | 2,109 28 | 38,435 78 |
| Kamloops | 11,694 95 | 4,790 58 | 16,485 53 |
| Lethbridge | 63,211 40 | 22,834 78 | 86,046 18 |
| Minnedosa | 4,933 11 | 1,167 66 | 6,100 77 |
| New Westminster | 2,562 85 | 5,831 50 | 8,394 35 |
| Prince Albert | 20,361 59 | 3,651 76 | 24,013 35 |
| Red Deer | 14,961 07 | 1,431 22 | 16,392 29 |
| Regina | 135,919 66 | 110,526 60 | 246,446 26 |
| Winnipeg | 15,111 15 | 7,479 77 | 22,590 92 |
| Yorkton | 48,812 24 | 5,949 77 | 54,762 61 |
| <i>Crown timber agents.</i> | 455,351 12 | 188,424 22 | 643,775 34 |
| Alameda | 466 60 | | |
| Battleford | 199 41 | | |
| Brandon | 1,206 89 | | |
| Calgary | 30,200 51 | | |
| Dauphin | 9,689 84 | | |
| Edmonton | 42,287 45 | | |
| Lethbridge | 258 38 | | |
| Minnedosa | 1,733 24 | | |
| New Westminster | 98,700 62 | | |
| Prince Albert | 38,980 98 | | |
| Red Deer | 1,299 44 | | |
| Regina | 206 36 | | |
| Winnipeg | 133,080 16 | | |
| Yorkton | 226 55 | | |
| | 358,536 43 | | 358,536 43 |
| Rocky Mountains Park of Canada | 9,106 48 | 92 00 | 9,198 48 |
| Yoho Park | 300 00 | | 300 00 |
| Rental of lands | 37 50 | | 37 50 |
| Fees re applications for patents | 15 00 | | 15 00 |
| Patent fees, head office | 442 00 | | 442 00 |
| Survey fees | 55,613 15 | | 55,613 15 |
| Map sales, office fees, &c. | 4,188 63 | | 4,188 63 |
| Carried forward | 69,702 76 | 92 00 | 69,794 76 |

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A.—DOMINION Lands Revenue (Cash and Scrip), &c.—*Concluded.*

| Agencies, &c. | Cash. | Scrip. | Total. |
|----------------------------------|--------------|------------|--------------|
| | \$ cts. | \$ cts. | \$ cts. |
| Brought forward..... | 69,702 76 | 92 00 | 69,794 76 |
| Fees re examinations, D.L.S..... | 463 50 | | 463 50 |
| Refunds of refunds..... | 347 59 | | 347 59 |
| Bonus for timber Berth..... | 2,231 00 | | 2,231 00 |
| Assay Charges..... | 1,321 61 | | 1,321 61 |
| Sub-agent's fees..... | 10 00 | | 10 00 |
| Irrigation fees..... | 127 04 | | 127 04 |
| Miscellaneous..... | 1,294 40 | | 1,294 40 |
| Mining fees..... | 584 00 | | 584 00 |
| Hay lands..... | 1,777 65 | | 1,777 65 |
| Coal lands..... | 505 40 | | 505 40 |
| Dredging leases..... | 1,062 95 | | 1,062 95 |
| Grazing lands..... | 19,790 27 | 15,202 15 | 34,992 42 |
| Rent of water power..... | 63 87 | | 63 87 |
| | 1,478,106 33 | 203,718 37 | 1,681,824 70 |
| Refunds..... | 35,083 66 | 1,638 09 | 36,721 75 |
| | 1,443,022 67 | 202,080 28 | 1,645,102 95 |

CHAS. H. BEDDOE,
Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, September 26, 1904.

B.—STATEMENT of Ordnance Lands Revenue for the fiscal year ended June 30, 1904.

| Month. | Amount. | Month. | Amount. |
|----------------|-----------|--------------|-----------|
| 1903. | \$ cts. | 1904. | \$ cts. |
| July..... | 932 82 | January..... | 5,316 88 |
| August..... | 18,963 02 | February.. | 440 76 |
| September..... | 235 33 | March..... | 1,800 70 |
| October..... | 363 88 | April..... | 361 98 |
| November..... | 200 44 | May..... | 307 58 |
| December..... | 206 00 | June..... | 1,364 95 |
| | | Total..... | 30,494 34 |

CHAS. H. BEDDOE,
Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, September 26, 1904.

SESSIONAL PAPER No. 25

C.—STATEMENT of Receipts on Account of School Lands for the fiscal year ended June 30, 1904.

| Month. | Manitoba. | Assiniboia. | Alberta. | Saskatchewan. | Total. |
|----------------|------------|-------------|----------|---------------|------------|
| 1903. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| July..... | 6,509 39 | 745 41 | 716 01 | 53 80 | 8,024 61 |
| August..... | 6,996 54 | 727 56 | 782 44 | 1 50 | 8,508 04 |
| September..... | 6,500 15 | 121 96 | 497 02 | 8 50 | 7,127 63 |
| October..... | 34,611 34 | 227 30 | 697 21 | 2 00 | 35,527 85 |
| November..... | 70,366 46 | 2,152 64 | 528 05 | ..... | 73,047 15 |
| December..... | 30,442 80 | 417 20 | 845 76 | 6 40 | 31,712 16 |
| 1904. | | | | | |
| January..... | 14,369 40 | 560 70 | 754 58 | 40 | 15,685 08 |
| February..... | 13,247 03 | 1,799 66 | 394 58 | 31 72 | 15,472 99 |
| March..... | 12,730 43 | 318 20 | 989 70 | 25 60 | 14,063 93 |
| April..... | 6,333 34 | 1,848 91 | 832 74 | 119 18 | 9,134 17 |
| May..... | 4,795 14 | 1,061 88 | 762 38 | 18 60 | 6,638 00 |
| June..... | 5,464 80 | 2,655 99 | 668 72 | 28 50 | 8,818 01 |
| | 212,366 82 | 12,637 41 | 8,469 19 | 296 20 | 233,769 62 |

CHAS. H. BEDDOE,

Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, September 26, 1904.

D.—STATEMENT of Registration Fees for Fiscal Year ended June 30, 1904.

| District. | Registrar. | Total Registration Fees. |
|------------------------|---------------------|--------------------------------|
| | | \$ cts. |
| Assiniboia..... | F. F. Forbes..... | 55,539 60 |
| North Alberta..... | Geo. Roy..... | 23,930 28 |
| South Alberta..... | W. R. Winter..... | 18,031 45 |
| East Saskatchewan..... | S. Brewster..... | 7,508 70 |
| West Saskatchewan..... | R. F. Chisholm..... | 456 35 |
| Yukon Territory..... | J. E. Girouard..... | 3,767 35 |
| | | 109,233 73 |

CHAS. H. BEDDOE,

Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, September 26, 1904.

4-5 EDWARD VII., A. 1905

E.—STATEMENT of Fines and Forfeitures, Northwest Territories, collected under Dominion Statutes (except "The Indian Act" and "The Fisheries Act") for Fiscal Year ended June 30, 1904.

| Date. | Name. | Amount. | Total. |
|----------------|---------------------------|----------|----------|
| 1903. | | \$ cts. | \$ cts. |
| September..... | Northwest Government..... | 1,499 53 | |
| December..... | " "..... | 1,172 09 | |
| 1904. | | | |
| March..... | " "..... | 1,289 80 | |
| June..... | " "..... | 1,950 50 | |
| | | | 5,911 92 |

CHAS. H. BEDDOE,
Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, September 26, 1904.

F.—STATEMENT of Casual Revenue for the Year ended June 30, 1904.

| Name. | Particulars. | Amount. |
|--|--|------------|
| | | \$ cts. |
| W. F. O'Hara..... | Refund account Boundary Survey, 1902..... | 24 00 |
| E. F. Stephenson..... | " expenses as Inspector of Agencies..... | 54 30 |
| A. J. Beaudette..... | " expenses..... | 147 25 |
| A. D. L. Dauphin..... | " telegram..... | 0 75 |
| E. F. Stephenson..... | " proceeds of sale of W. B. Underhill's horse..... | 25 00 |
| Commiss. of Immigration, Winnipeg. | " railway fares advanced to C. T. Smith and M. Somerville..... | 14 80 |
| F. T. Congdon..... | " travelling expenses..... | 596 90 |
| Justice Department..... | " amount security re costs, Farwell vs. The Queen..... | 50 00 |
| H. Douglas..... | " overpayment to McBride & Co..... | 8 04 |
| Commiss. of Immigration, Winnipeg. | " railway fares and sale of old iron..... | 18 56 |
| " " "..... | " proceeds sale of old lumber..... | 5 00 |
| A. D. L. Winnipeg..... | " proceeds sale of J. Coxe's horse..... | 80 00 |
| H. Douglas..... | " proceeds ck. No. 66 of Aug. 13, '02, not used..... | 1,200 00 |
| Relief Advances for fiscal year ended June 30, 1904..... | | 1,178 34 |
| | | 3,402 94 |
| Relief Mortgages..... | 1876..... | \$1,981 94 |
| Seed Grain Advances..... | 1893 (Sheho lake Settlers)..... | 14 00 |
| " "..... | 1894..... | 5,097 05 |
| " "..... | 1896..... | 1,094 66 |
| " "..... | 1898..... | 105 13 |
| " "..... | 1900..... | 477 58 |
| " "..... | 1901..... | 7,266 92 |
| " "..... | 1902..... | 14 37 |
| | | 16,051 65 |
| | | 19,454 59 |

CHAS. H. BEDDOE,
Accountant.

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, September 26, 1904.

SESSIONAL PAPER No. 25

G.—STATEMENT showing seed Grain and Relief Mortgages repayments for year ended June 30, 1904.

| | Seed Grain Advances. | Seed Grain Advances. | Seed Grain Advances. | Seed Grain Advances. | Seed Grain Advances. | Seed Grain Advances. | Seed Grain Advances. | Seed Grain Advances. | Seed Grain Settlers' Account. | Territorial Account. | Relief Mortgages | Total. |
|------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------------------|-------------------------|---------------------|-----------|
| | 1902. | 1901. | 1900. | 1898. | 1896. | 1895. | 1894. | 1893. | 1890. | 1886-87-88. | 1876. | |
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| | 14 37 | 7,266 92 | 477 58 | 105 13 | 1,094 66 | 4,320 32 | 5,097 05 | 14 00 | 3,110 41 | 2,639 92 | 1,981 94 | 26,122 30 |
|  | ..... | 113 25 | ..... | 3 05 | 1 45 | 85 13 | 102 08 | 1 00 | 78 27 | 23 40 | 71 41 | 479 04 |
| Refunds... | 14 37 | 7,153 67 | 477 58 | 102 08 | 1,093 21 | 4,235 19 | 4,994 97 | 13 00 | 3,032 14 | 2,616 52 | 1,910 53 | 25,643 26 |

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA September 26, 1904.

CHAS. H. BEDDOE,
Accountant.

4-5 EDWARD VII., A. 1905

H.—STATEMENT of Gross Receipts on account of Dominion Lands for the Fiscal Year ended June 30, 1904.

| Year. | Homestead Fees. | | Improvements. | | General sales of Lands. | | Timber dues. | | Rents from Grazing Lands. | | Export tax, mining fees, hay, coal lands, etc. | | Rocky Mountains Park of Canada. | | Map Sales, Office Fees, Sundry Fees. | | Survey Fees. | | Rentals and miscellaneous. | | Total. | |
|----------------|-----------------|----|---------------|----|-------------------------|----|--------------|----|---------------------------|----|--|----|---------------------------------|----|--------------------------------------|----|--------------|----|----------------------------|----|--------------|----|
| | \$ | c. | \$ | c. | \$ | c. | \$ | c. | \$ | c. | \$ | c. | \$ | c. | \$ | c. | \$ | c. | \$ | c. | \$ | c. |
| 1903. | | | | | | | | | | | | | | | | | | | | | | |
| July..... | 31,710.00 | | 1,102.00 | | 8,323.68 | | 37,297.85 | | 1,169.47 | | 74,901.91 | | 721.25 | | 453.65 | | 2,760.96 | | 2,665.20 | | 161,105.97 | |
| August..... | 21,720.00 | | 1,902.07 | | 6,540.09 | | 15,019.89 | | 1,526.48 | | 66,855.91 | | 879.93 | | 375.97 | | 1,314.69 | | 402.00 | | 116,537.03 | |
| September..... | 17,980.00 | | 1,638.50 | | 9,717.19 | | 40,584.22 | | 1,587.56 | | 73,124.70 | | 1,129.75 | | 696.49 | | 260.00 | | 1,593.59 | | 117,732.00 | |
| October..... | 19,095.00 | | 769.65 | | 8,808.38 | | 40,227.89 | | 784.20 | | 64,205.25 | | 1,553.00 | | 440.92 | | 686.20 | | 305.73 | | 136,876.22 | |
| November..... | 21,650.00 | | 879.87 | | 22,325.19 | | 57,231.61 | | 1,301.56 | | 20,762.00 | | 265.50 | | 516.50 | | 9,904.12 | | 1,716.24 | | 136,562.59 | |
| December..... | 15,190.00 | | 796.76 | | 10,486.72 | | 40,619.59 | | 2,063.03 | | 18,654.01 | | 649.30 | | 578.76 | | 943.62 | | 551.61 | | 90,533.40 | |
| 1904. | | | | | | | | | | | | | | | | | | | | | | |
| January..... | 11,980.00 | | 1,135.25 | | 6,908.51 | | 40,890.66 | | 643.81 | | 12,526.58 | | 349.25 | | 484.20 | | 783.99 | | 152.41 | | 75,854.66 | |
| February..... | 11,056.02 | | 1,402.25 | | 69,705.83 | | 19,615.81 | | 1,522.27 | | 12,220.98 | | 440.17 | | 684.15 | | 4,827.98 | | 201.74 | | 121,737.20 | |
| March..... | 13,294.52 | | 1,344.75 | | 18,835.08 | | 41,112.89 | | 3,237.07 | | 17,463.94 | | 903.75 | | 488.55 | | 8,540.83 | | 187.56 | | 105,408.94 | |
| April..... | 22,940.00 | | 1,777.78 | | 8,828.80 | | 27,900.35 | | 2,116.40 | | 14,019.03 | | 346.25 | | 672.95 | | 224.00 | | 13,720.98 | | 92,545.80 | |
| May..... | 31,115.82 | | 1,542.84 | | 10,577.08 | | 31,807.15 | | 2,116.91 | | 34,339.53 | | 1,480.52 | | 421.85 | | 1,199.65 | | 187.31 | | 114,789.38 | |
| June..... | 38,041.00 | | 1,407.75 | | 15,633.62 | | 35,036.42 | | 1,721.51 | | 86,505.34 | | 387.81 | | 1,283.64 | | 25,227.11 | | 3,188.94 | | 208,433.14 | |
| Sept..... | 255,772.36 | | 15,119.47 | | 196,750.15 | | 397,344.33 | | 19,790.27 | | 495,579.18 | | 9,106.48 | | 7,097.63 | | 56,673.15 | | 24,873.31 | | 1,478,106.33 | |
| | | | | | 188,424.22 | | | | 15,202.15 | | | | 92.00 | | | | | | | | 203,718.37 | |
| | 255,772.36 | | 15,119.47 | | 385,174.37 | | 397,344.33 | | 34,992.42 | | 495,579.18 | | 9,198.48 | | 7,097.63 | | 56,673.15 | | 24,873.31 | | 1,681,824.70 | |

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, September 26, 1904.

CHAS. H. BEDDOE,
Accountant.

SESSIONAL PAPER No. 25

DOMINION LANDS REVENUE.

I.—STATEMENT of Gross Receipts (Cash and Scrip) on account of Dominion Lands Revenue for the fiscal year 1903-1904, compared with the previous fiscal year.

| Particulars. | Fiscal Year 1903-1904. | Fiscal Year 1902-1903. | Increase. | Decrease. | Net Decrease. |
|---|---------------------------|---------------------------|-----------|------------|------------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Dominion Lands Agencies..... | 643,775 34 | 620,503 54 | 23,271 80 | | |
| Crown Timber Agencies. | 358,536 43 | 409,719 54 | | 51,183 11 | |
| Rocky Mountains Park of Canada.. | 9,198 48 | 5,063 69 | 4,134 79 | | |
| Hay, Mining, Coal, Stone and Gra- zing Lands | 38,402 29 | 34,558 70 | 3,843 59 | | |
| Miscellaneous..... | 36,975 42 | 112,099 21 | | 45,123 79 | |
| | 1,116,887 96 | 1,181,944 68 | 31,250 18 | 96,306 90 | |
| Yukon Territory..... | 564,936 74 | 708,942 15 | | 144,005 41 | |
| | 1,681,824 70 | 1,890,886 83 | 31,250 18 | 240,312 31 | 209,062 13 |

DEPARTMENT OF THE INTERIOR,
ACCOUNTS BRANCH,
OTTAWA, September 26, 1904.

CHAS. H. BEDDOE,
Accountant.

No. 27.

REPORT OF THE SCHOOL LANDS BRANCH.

DEPARTMENT OF THE INTERIOR,
SCHOOL LANDS BRANCH,
OTTAWA, Sept. 23, 1904.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the following report in regard to the business of the school lands branch of the department for the fiscal year ended June 30, 1904.

While it was not considered expedient in the interest of the school lands endowment fund to hold any auction sales of school lands during the past year, either in Manitoba or the North-west Territories, it was decided, owing to the numerous inquiries received with respect to these lands to have an inspection and valuation made of those in the vicinity of the Calgary and Edmonton Railway, and of the Crow's Nest branch of the Canadian Pacific Railway in western Alberta, as well as of some in eastern Assiniboia, in the Yorkton and Saltcoats district, with a view of offering them at public auction in the near future. The work of valuation was entrusted to Mr. J. F. Prud'homme, and the lands inspected and valued by him were situated, speaking generally, within a radius of from twelve to twenty miles of the Calgary and Edmonton Railway and of the Crow's Nest branch of the Canadian Pacific Railway in western Alberta, and within from ten to twelve miles of the Manitoba and North-western Railway in eastern Assiniboia, between Harrowby and Insinger stations. The minimum valuation placed on these lands was \$7 per acre.

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A large number of applications for grazing leases of school lands, especially for those in the Territories, was received during the year, and 300 leases were issued for that purpose, of which 264 were of lands in the Territories, and 36 of lands in Manitoba. On June 30, 1904, the number of grazing leases of school lands in force was 914.

The gross revenue from these leases during the fiscal year was as follows:—

| | |
|-----------------------------|-------------|
| North-west Territories..... | \$ 9,927 88 |
| Manitoba..... | 1,639 45 |
| Total..... | \$11,567 33 |

On the same date nine leases of school lands for coal mining purposes were in force, the revenue from which for the year was \$631.18. No royalty has so far been paid, as the mines are not yet in active operation.

The gross revenue for the fiscal year from all sources is classified as follows:—

MANITOBA.

| | Head Office. | Agencies. | Total. |
|--------------------------|--------------|-----------|------------|
| | \$ cts. | \$ cts. | \$ cts. |
| Sales..... | 190,803 12 | 12,645 31 | 203,448 43 |
| Cultivation Permits..... | 524 33 | 3 00 | 527 33 |
| Grazing..... | 1,328 18 | 311 27 | 1,639 45 |
| Timber..... | 2,317 50 | 2,547 63 | 4,865 13 |
| Hay..... | | 1,874 48 | 1,874 48 |
| Coal..... | 12 00 | | 12 00 |
| | 194,985 13 | 17,381 69 | 212,366 82 |
| | | | 539 39 |
| Net total..... | | | 211,827 43 |

NORTHWEST TERRITORIES.

| | Head Office. | Agencies. | Total. |
|--------------------------|--------------|-----------|-----------|
| | \$ cts. | \$ cts. | \$ cts. |
| Sales..... | 9,104 26 | | 9,104 26 |
| Cultivation Permits..... | 30 00 | 5 50 | 35 50 |
| Grazing..... | 7,725 39 | 2,202 49 | 9,927 88 |
| Timber..... | 27 75 | 411 78 | 439 53 |
| Hay..... | 52 50 | 1,126 95 | 1,179 45 |
| Coal..... | 535 13 | 181 05 | 716 18 |
| | 17,475 03 | 3,927 77 | 21,402 80 |
| Refunds..... | | | 365 48 |
| Net total..... | | | 21,037 32 |

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The total net revenue, therefore, received during the year from Manitoba and the Territories was \$232,864.75.

The following is a statement of the work done in the branch during the year:—

| | |
|---|--------|
| Letters and telegrams sent.. . . . | 10,100 |
| Leases prepared.. . . . | 327 |
| Cultivation permits issued.. . . . | 38 |
| Copies of documents furnished.. . . . | 247 |
| Schedules and reports, number of folios.. . . . | 305 |
| Receipts issued.. . . . | 1,414 |
| Statements of accounts furnished.. . . . | 3,086 |
| Number of accounts kept posted.. . . . | 3,086 |

In addition to the foregoing, there was a considerable amount of work done in sending out printed forms of various kinds, of which no record was kept.

The following statement, prepared by the accounts' branch of the department, shows the position of the School Lands' Fund of Manitoba, and of each of the provisional districts of the North-west Territories, on June 30, 1904.

I have the honour to be, sir,

Your obedient servant,

FRANK S. CHECKLEY,

Chief Clerk.

STATEMENT of revenue and expenditure on account of school lands, for the year ending
June 30, 1904.

MANITOBA SCHOOL LANDS,

| Particulars. | Dr. | | Cr. | |
|---|-----------|------|-----------|------|
| | \$ | cts. | \$ | cts. |
| Balance, July 1st, 1903.. . . . | | | 941,158 | 68 |
| Sales.. . . . 12 months to June 30, 1904.. . . . | | | 203,270 | 94 |
| Rental for cultivation purposes.. . . . | | | 514 | 83 |
| Timber, Hay, and Grazing.. . . . | | | 8,041 | 66 |
| Interest.. . . . | | | 31,290 | 66 |
| To cost of management at Ottawa.. . . . | 912 | 50 | | |
| Expenses being salaries, printing and advertising, &c.. . . . | 3,713 | 25 | | |
| Interest paid to Manitoba Government.. . . . | 31,290 | 66 | | |
| Interest and revenue paid to Manitoba Government, April 1st, 1902, to June 30, 1902.. . . . | 6,886 | 24 | | |
| Balance, June 30, 1904.. . . . | 1,141,474 | 12 | | |
| | 1,184,276 | 77 | 1,184,276 | 77 |

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STATEMENT of revenue and expenditure on account of school lands, for the year ending
June 30, 1904.

ASSINIBOIA SCHOOL LANDS.

| Particulars. | DR. | CR. |
|--|------------|------------|
| | \$ cts. | \$ cts. |
| Balance, June 30, 1903..... | | 167,503 70 |
| Sales..... 12 months to June 30, 1904..... | | 9,063 11 |
| Rental for cultivation purposes..... " " " " " "..... | | 3 00 |
| Timber, hay, and grazing..... " " " " " "..... | | 3,379 51 |
| Interest..... " " " " " "..... | | 4,955 11 |
| To cost of management at Ottawa..... " " " " " "..... | 456 35 | |
| Expenses being salaries, printing and advertising, &c..... | 3,169 20 | |
| Interest paid to North-west Government to June 30, 1904..... | 4,955 11 | |
| Interest and Revenue paid to North-west Government to June 30, 1903..... | 9,031 54 | |
| Balance, June 30, 1904..... | 167,292 33 | |
| | 184,904 43 | 184,904 43 |

STATEMENT of Revenue and Expenditure ending June 30, 1904.

ALBERTA SCHOOL LANDS.

| | | |
|--|-----------|-----------|
| Balance, June 30, 1903..... | | 60,290 80 |
| Rental for cultivation purposes, 12 mos. to June 30, 1904..... | | 4 50 |
| Timber, hay and grazing, 12 mos. to June 30, 1904..... | | 8,297 40 |
| Interest, 12 mos. to June 30, 1904..... | | 2,073 66 |
| To cost of management at Ottawa, 12 mos. to June 30, 1904..... | 456 25 | |
| Expenses being salaries, printing and advertising, etc., 12 m. to June 30, 1904..... | 2,263 00 | |
| Interest paid to Northwest Government to June 30, 1904..... | 1,673 66 | |
| Interest and revenue paid to Northwest Government to June 30, 1903..... | 15,597 32 | |
| Balance, June 30, 1904..... | 50,676 21 | |
| | 70,666 44 | 70,666 44 |

SASKATCHEWAN SCHOOL LANDS.

| | | |
|---|----------|----------|
| Balance, June 30, 1903..... | | 3,276 04 |
| Rental for cultivation purposes, 12 mos. to June 30, 1904..... | | 13 00 |
| Timber, hay and grazing, 12 mos. to June 30, 1904..... | | 276 80 |
| Interest, 12 mos. to June 30, 1904..... | | 85 81 |
| Interest paid Northwest Government, 12 mos. to June 30, 1904..... | 85 81 | |
| Interest and revenue paid North-west Government to June 30, 1903..... | 1,050 96 | |
| Balance, June 30, 1904..... | 2,514 88 | |
| | 3,651 65 | 3,651 65 |

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No. 28.

REPORT OF THE REGISTRAR.

DEPARTMENT OF THE INTERIOR,
CORRESPONDENCE REGISTRATION BRANCH,
OTTAWA, September 16, 1904.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit statements showing the work of this branch for the fiscal year ended June 30, 1904.

I have the honour to be, sir,
Your obedient servant,
K. J. HENRY,
Registrar.

STATEMENT.

STATEMENT of work done in the Correspondence Registration Branch during the year ended June 30, 1904.

| From July 1, 1903, to June 30, 1904. | Letters Received. | Letters Sent. | Registered Letters Received. | Registered Letters Sent. | Telegrams Sent. | Totals. |
|--------------------------------------|-------------------|---------------|------------------------------|--------------------------|-----------------|---------|
| July | 9,180 | 13,607 | 479 | 1,684 | 68 | 25,012 |
| August | 9,524 | 12,760 | 371 | 1,540 | 72 | 24,267 |
| September | 8,098 | 12,201 | 380 | 1,649 | 63 | 22,391 |
| October | 8,452 | 12,898 | 408 | 1,932 | 69 | 23,759 |
| November | 8,984 | 13,283 | 476 | 1,901 | 61 | 24,705 |
| December | 9,185 | 11,611 | 550 | 1,640 | 77 | 23,063 |
| Total for first half year | 53,423 | 76,354 | 2,664 | 10,346 | 410 | 143,197 |
| January | 8,997 | 12,623 | 515 | 1,516 | 57 | 23,708 |
| February | 9,530 | 13,121 | 459 | 2,169 | 70 | 26,349 |
| March | 9,490 | 14,133 | 526 | 2,388 | 73 | 26,610 |
| April | 9,610 | 12,958 | 449 | 1,801 | 53 | 24,871 |
| May | 10,482 | 13,466 | 431 | 1,925 | 45 | 26,349 |
| June | 11,540 | 14,469 | 452 | 1,538 | 88 | 28,087 |
| Total for second half year | 59,649 | 80,770 | 2,832 | 11,337 | 386 | 154,974 |
| Total for first half year | 53,423 | 76,354 | 2,664 | 10,346 | 410 | 143,197 |
| Total for second half year | 59,649 | 80,770 | 2,832 | 11,337 | 386 | 154,974 |
| Total for year ended June 30, '04. | 113,072 | 157,124 | 5,496 | 21,683 | 796 | 298,171 |

The number of pages compared during the year was 6,889.

The number of pages of Letter Book indexed was 84,429, each page was made in double entry.

Daily average, letters received 375, or an increase over last year of 27%.

Daily average, letters sent 508, or an increase over last year of 16%.

K. J. HENRY,
Registrar.

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Moneys received.

| | July 1, 1903, to June 30, 1904. |
|-------------------|---------------------------------------|
| | \$ cts. |
| Cash..... | 8,006 02 |
| Cheques..... | 401,107 18 |
| Scrip..... | 176,885 49 |
| Money orders..... | 44,356 75 |
| Total..... | 630,355 44 |

K. J. HENRY,
Registrar.

No. 29.

REPORT OF THE GEOGRAPHER.

DEPARTMENT OF THE INTERIOR,
OFFICE OF GEOGRAPHER,
OTTAWA, June 30, 1904.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to report as follows on the work of my office for the past year:—

The assignment of work was as below:

J. E. Chalifour compiled the Peace and Athabaska map and drew for photo-lithography, the map of the White, Alsek and Kluane rivers.

H. E. Baine completed sheets 1, S.E. and 2, S.W. Ontario, and has commenced the compilation of Nos. 1 N.W. and 1 N.E.

H. Taché completed sheets 13, New Brunswick and 27, Ontario and commenced sheet 28, Ontario.

M. W. Sharon compiled the information for a contoured edition and added the surveys of 1903 to the map of Manitoba and North-west Territories and corrected the proofs for the new edition of the Alberta, Saskatchewan and Assiniboia maps.

G. E. Dumouchel compiled the 'copy' for the National Transcontinental and the North-west Railway maps, drew the Timiskaming sheet for photo-lithography, made tracings of township plans, &c.

H. W. Wilson compiled information for sheets 2 N.E. and 9 S.E., made tracings of township and railway plans and compiled information for the Economic Atlas.

A. M. Darrach was appointed August 1, and has made tracings and reductions of railway, township and other plans.

J. P. McElligott was appointed January 4, and has made tracings of plans filed in the Department of Railways and Canals and has made reductions of sundry plans.

C. G. Wood was appointed January 2, and has made tracings of railway and township plans.

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J. K. Bennie was appointed January 2, and has compiled 'Density of Population' maps and has been employed in the reduction of census statistics and trade and navigation tables.

R. Fraser was appointed January 2, and has been employed in the reduction of census statistics and has drawn diagrams for the Economic Atlas.

R. W. Craig was appointed June 14, and has drawn diagrams for the Economic Atlas.

J. S. Gagnon was appointed September 17, and has had charge of the distribution of maps.

Mrs. D. E. Waine has been employed as stenographer and typewriter and, as in previous years, has had charge of the distribution lists.

The demand for the new map of Canada—scale 35 miles to 1-inch—having exhausted the second edition, a third edition of 5,000 copies was printed, of which about 1,000 have been distributed to date.

New editions of the Alberta, Assiniboia and Saskatchewan maps showing the extensive surveys of 1903 and the many new railways, have also been published.

Publication of my 'Dictionary of Altitudes in Canada,' was suspended during my absence in England, but was pushed to completion soon after my return, in September. It has been distributed to civil engineers, foreign and domestic scientific societies, libraries, &c., and the demand indicates that it fills a 'long-felt want.' At the same time my 'Altitudes in Canada,' published by the Geological Survey—and which practically forms Part I. of the 'Dictionary'—was also distributed, after an unnecessary delay of two and a half years.

The first sheet—No. 1, S.W. Ontario, of the Standard Topographical map of Canada has been issued and four others, 1 S.E., 2 S.W., 13 and 27 are well advanced toward completion. They are a distinct advance over anything hitherto published, and are the forerunners of the other sheets which, when combined, will form a standard map of the Dominion. As each sheet includes a definite number of degrees of latitude and longitude, any number, say 2, 4, 6, &c., can be joined together to form a map of any required size or to include any required area. Attention has been given first to the areas that either have not been mapped at all by other organizations; that have been mapped imperfectly, or that have been mapped on other than the 'standard' scales.

Many difficulties are encountered in compiling maps of this nature, largely owing to the lack of 'control.' All surveys should be based upon a trigonometrical framework which will give a series of points accurately fixed in latitude and longitude and not more than, say, 20 miles apart. These triangulation stations form a series of points between which the draughtsman compiles the other available information, and prevent the accumulation of large residual errors—inasmuch as each point thus determined becomes a new starting point without any initial error.

What is required at the present time, is a network of triangulation covering southern Ontario and Quebec and the maritime provinces, to be, later, extended to Manitoba and thence westward approximately along the 49th parallel. When completed it will determine the accuracy—or the reverse—of existing information, and, when the latter is proved defective, special surveys can be made to detect and eliminate the errors. That 'one should not weigh coal in a chemist's balance' is an engineering axiom, and spending money on refinements of surveying that are lost in the scale of publication is waste, pure and simple. Errors that are unimportant in a map on a scale of 4 miles to 1 inch may be apparent in a 2-mile map and of importance in the 1-mile map. The 4-mile scale, however, will suffice for Canada's needs for many years, except in special localities where special conditions call for a larger scale and special surveys.

A line of precise levels should be run from Montreal or Toronto, by way of the Canadian Pacific or National Transcontinental Railway, or both, to the Pacific.

The work of reducing railway, canal and other profiles to mean sea-level—for a compilation like my 'Altitudes in Canada'—is rendered difficult by the lack of any extensive lines of precise levels, to which they can be referred; in fact, any compilation in our present state of knowledge is simply the best presentation possible of the conflicting evidence available at the present time.

The Department of Public Works has run a line of precise levels from Rouse's Point to Quebec, via Sorel and from Sorel to Lachine. In the United States the Coast and Geodetic, United States Geological Survey, United States Engineers and other organizations have done a great deal of levelling, but only the portion that was done in the vicinity of the Canada-United States boundary is of interest. Lake Champlain has been determined by lines of levels from New York and from Boston; from Rouse's Point, near the north end of the lake, levels have been carried by way of Valleyfield, Quebec and northern portion of New York state to Lake Ontario; from Port Dalhousie to Port Colborne; from Lake Erie to Huron and from Lake Michigan to Lake Superior. Through the great lakes the levels were transferred from one extremity to the other by water-levels, observers at the gauges taking a series of simultaneous readings for nearly four months, in 1875.

This work renders it possible to commence our line of precise levels at any point on the great lakes or the St. Lawrence, connecting with the United States organizations by water-levels if the initial point is on Lake Ontario or Erie, or, if on the St. Lawrence, the connection can be direct. A beginning should be made as soon as possible and carried on as time and cost permit. As previously stated, it could be commenced at Montreal or Toronto, or both. If commenced at Montreal, it could be carried along the Canadian Pacific; if at Toronto, the Grand Trunk to North Bay and the Canadian Pacific from that point westward, constitute the most feasible route. Spur lines of levels should be carried, as checks to Lake Huron at Waubaushene, Parry Sound and Algoma. From Heron Bay, where the Canadian Pacific first strikes Lake Superior, they could be transferred by water-levels to Fort William. This would furnish a further check. The construction of the National Transcontinental Railway also offers a route with a minimum of rise and fall, whether the only line is carried along it, or whether it is utilized for a second line.

The United States Coast and Geodetic Survey has recently adopted a new type of precise level, which permits rapid precise levelling at low cost—\$7 to \$11 per completed mile, as compared with an earlier cost of \$16 to \$24—and of a high degree of accuracy.

I have extracted from an article by Mr. John F. Hayford, in the *Engineering News* of July 2, 1903, a few details respecting the degree of accuracy and rate of work of which it is capable.

'The rate of progress—with this instrument—even under the most favourable conditions, has rarely fallen below 50 completed miles per month, and the average rate has been 66 miles per month. Every mile of progress represents a mile levelled at least twice, once in the forward and once in the backward direction. If the first two results on any section did not check within specified narrow limits the section was relevelled in each direction, making four trips in all over that portion.

'On the Anthony-Shreveport line, 105 miles were levelled in the month of June, 1902, an average of 8.9 miles of single line per observing day and 1.2 miles of single line per hour during the progress of the levelling. In Wyoming 15.8 miles of single line—none of which was found to require re-running—was run in one day, an average rate of 1.6 miles per hour.

'The greatest correction yet found in any of these instruments is 0.00039 foot per mile, and on more than half the lines the necessary correction to close all circuits is less than 0.00010 foot per mile. The conditions as to grade have varied from the mountain divisions of the Union Pacific in Wyoming, and even cross-country lines to triangulation stations on hill-tops, to the level track between New York and Albany. The weather conditions have included temperatures as low as the freezing point in Wyoming in October, and temperatures as high as 127 F. in northern Texas in August.'

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Below is a list of maps published, in press and in progress.

Dominion of Canada and Newfoundland.—Eight sheets, each 25 inches by 26 inches; extends from the Atlantic to the Pacific and from Baltimore and Salem (Oregon), on the south, to Cumberland sound and Herschell island on the north. Scale, 35 miles to 1 inch.—*Published.*

Dominion of Canada and Newfoundland.—Sixteen inches by 36 inches. Scale, 100 miles to 1 inch.—*Published.*

Rocky Mountains.—Banff sheet, showing country in the vicinity of Banff. Scale, 2 miles to 1 inch.—*Published.*

Rocky Mountains.—Lake Louise sheet, showing country between Castle Mountain and Leancoil. Scale, 2 miles to 1 inch.—*Published.*

Manitoba.—Scale, 12½ miles to 1 inch.—*Published.*

Assiniboia.—Edition of 1904. Scale, 12½ miles to 1 inch.—*Published.*

Saskatchewan.—Edition of 1904. Scale, 12½ miles to 1 inch.—*Published.*

Alberta.—Edition of 1904. Scale, 12½ miles to 1 inch.—*Published.*

Yukon.—Extends from Lynn canal on the south to Eagle on the north and from the Pacific to the Frances river. Scale, $\frac{1}{750,000}$ (or 11'82 miles to 1 inch).—*Published.*

British Columbia.—Railway belt map, showing the 'Railway Belt' in British Columbia. Scale, $\frac{1}{350,000}$ (or 7'9 miles to 1 inch).—*Published.*

Manitoba and North-west Territories.—Includes Manitoba, Assiniboia, Saskatchewan, Alberta and south-western portion of Keewatin; 3 sheets, each 25 inches by 36 inches. Scale, 12½ miles to 1 inch.—*Published.*

Water-power Map.—Average rainfall at principal points in Canada. Scale, 100 miles to 1 inch.—*Published.*

National Transcontinental Railway Map.—Shows approximate route of the National Transcontinental Railway, Moncton to Port Simpson. Scale, 100 miles to 1 inch.—*Published.*

Map showing railways in Manitoba, Alberta, Assiniboia and Saskatchewan. Scale, 35 miles to 1 inch.—*Published.*

Sheet 1, S. W. Ontario.—Windsor sheet—Essex, Kent and Lambton, and portions of Elgin, Middlesex and Huron counties. Scale, $\frac{1}{250,000}$ (3'95 miles to 1 inch).—*Published.*

Sheet 1, S. E. Ontario.—London sheet—Norfolk, Oxford, Brant, and other portions of Elgin, Middlesex, Huron, Perth, Waterloo and Wentworth counties. Scale, $\frac{1}{250,000}$ (3'95 miles to 1 inch).—*In press.*

Sheet 2, S. W. Ontario.—Hamilton sheet—Lincoln, Welland, Haldimand, and portions of Wentworth and Halton counties. Scale, $\frac{1}{250,000}$ (3'95 miles to 1 inch).—*In press.*

Sheets 1 N. W. and 1 N. E. Ontario.—Guelph sheet—Wellington, Grey, Bruce and portions of Huron, Perth, Waterloo and Dufferin counties. Scale, $\frac{1}{250,000}$ (3'95 miles to 1 inch).—*In progress.*

Timiskaming sheet.—Pontiac county, Quebec, and Nipissing district, Ontario. Scale, 12 miles to 1 inch.—*In press.*

Sheet 13.—Includes whole of New Brunswick with exception of Madawaska and part of Westmoreland and Albert counties. Scale $\frac{1}{500,000}$ (7'89 miles to 1 inch).—*In press.*

Sheet 27, Ontario.—Rainy river district and adjoining portion of Keewatin. Scale $\frac{1}{500,000}$ (7'89 miles to 1 inch).—*In press.*

Peace and Athabaska Rivers District map.—Alberta and Athabaska—includes the country between Wetaskiwin and Athabaska lake and between Athabaska river and the eastern boundary of British Columbia. Scale $\frac{1}{800,000}$ (12'63 miles to 1 inch).—*In press.*

White, Alsek and Kluane rivers district.—Southwestern Yukon. Scale $\frac{1}{400,000}$ (6'31 miles to 1 inch).—*In press.*

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Sheet 11, Quebec-Montreal sheet.—Scale $\frac{1}{250,000}$ (7'89 miles to 1 inch).—*In progress.*

Sheet 15 N.W. Cape Breton.—Cape North sheet. Scale $\frac{1}{250,000}$ (3'95 miles to 1 inch).—*In progress.*

Sheet 15 S.W., Cape Breton.—Hawkesbury sheet. Scale $\frac{1}{250,000}$ (3'95 miles to 1 inch).—*In progress.*

Sheet 15 S.E., Cape Breton.—Sydney sheet. Scale $\frac{1}{250,000}$ (3'95 miles to 1 inch).—*In progress.*

Sheet 18, British Columbia.—Kamloops sheet. Scale $\frac{1}{250,000}$ (7'89 miles to 1 inch).—*In progress.*

Sheet 19, British Columbia.—West Kootenay sheet. Scale $\frac{1}{250,000}$ (7'89 miles to 1 inch).—*In progress.*

Sheet 37, Quebec.—Gaspé sheet. Scale $\frac{1}{250,000}$ (7'89 miles to 1 inch).—*In progress.*
Economic Atlas (*in progress*)—includes the following :—

(a) Relief map.

(b) Geology.

(c) Mineral Occurrences.

(d) Forest Resources, including Limits of Trees.

(e) Telegraphs and Cables.

(f) Telephone Lines.

(g) Railways.

(h) Canals.

(i) Indians—Country occupied by various Tribes, &c.

(j) Isotherms for months and year.

(k) Rainfall.

(l) Snowfall.

(m) Isobars.

(n) Lighthouses, sailing routes, distances, depths of ocean, &c.

(o) Density of population.

Also about 25 sheets of diagrams showing increase of population, exports, imports, statistical information respecting fisheries, post offices, manufactures, agriculture, &c.

I have the honour to be, sir,

Your obedient servant,

JAMES WHITE,

Geographer.

PART II

IMMIGRATION

IMMIGRATION

REPORT OF THE SUPERINTENDENT OF IMMIGRATION.

DEPARTMENT OF THE INTERIOR,
OTTAWA, June 30, 1904.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to bring to your notice the reports which follow, from the officials of this branch, in Canada, Europe and the United States, referring to their work for the fiscal year now ended.

The work at headquarters has been quite heavy, 59,404 attachments having been made to our files, and we have responded during the year to 217,680 requests for information through the mails, besides attending to many personal inquiries at the offices in the Imperial buildings. Two million seven hundred and three thousand six hundred and forty-six pamphlets, &c., have been sent out during the year.

On the recommendation of our agents in the United States, we procured transportation during the year for three delegates to western Canada from the state of Massachusetts, thirteen from Ohio, two from South Dakota, from Michigan twenty-nine, Illinois three, New York one, Wisconsin four, Indiana two and Idaho one; total fifty-eight. We also arranged transportation for one delegate from Austria, and for the British Chamber of Commerce party, numbering one hundred and twenty-five, besides arranging their itinerary. The reports of these visitors are used in our literature and advertisements, and help to make known the character and capabilities of the Canadian west in a very effective manner.

The following is a statement showing quantity of immigration literature ordered for distribution during the fiscal year. 1903-1904:—

| Name of Publication. | Quantity Ordered. |
|--|-------------------|
| Geography—(English)..... | 225,000 |
| “ (Bound)..... | 1,000 |
| “ (French)..... | 100,000 |
| Atlas—(English)..... | 160,000 |
| “ (Folder)..... | 300,000 |
| “ (French)..... | 15,000 |
| “ (German)..... | 60,000 |
| “ (Dutch)..... | 25,000 |
| “ (Norwegian)..... | 15,000 |
| Observations on Canada's Great West (Iddings)..... | 5,000 |
| Cartoon Book..... | 300,000 |
| Prosperity follows Settlement..... | 52,250 |
| Edmonton Bulletin..... | 1,400 |
| Selkirk Board of Trade..... | 1,600 |
| Souvenir Book..... | 100,000 |

SESSIONAL PAPER No. 25

FOR THE FISCAL YEAR 1903-4.

Per Ocean Travel—

| | |
|--------------------|--------------|
| Quebec.. | 45,987 |
| Montreal.. | 5,316 |
| Halifax.. | 25,598 |
| St. John.. | 8,259 |
| | <hr/> 85,160 |

From United States, not including 58 U.S. citizens by Ocean Ports—

| | |
|---|--------------|
| Montreal.. | 2,496 |
| Winnipeg, &c.. | 33,266 |
| Lake St. John.. | 1,114 |
| Rainy River.. | 500 |
| Montreal Colonization Society.. | 114 |
| Temiscamingue District.. | 202 |
| Customs entries.. | 7,479 |
| | <hr/> 45,171 |

130,331

REPORT of Immigrants arriving by months, for twelve months ending June 30, 1904.

| Month. | 1903. | | | | 1904. | | | |
|--------------------------------|--------|---------|----------------------|---------|--------|---------|--------------------|---------|
| | Males. | Females | Childr'n under 12 | Total. | Males. | Females | Childr'n unde 1 | Total. |
| July..... | 4,650 | 1,812 | 1,923 | 8,385 | 6,678 | 2,151 | 2,475 | 11,304 |
| August..... | 4,794 | 1,296 | 1,151 | 7,241 | 5,877 | 1,993 | 1,679 | 9,549 |
| September..... | 4,320 | 1,346 | 1,229 | 6,895 | 4,786 | 1,873 | 1,624 | 8,283 |
| October..... | 5,038 | 1,450 | 1,714 | 8,202 | 4,449 | 1,753 | 1,975 | 8,177 |
| November..... | 4,020 | 1,184 | 1,323 | 6,527 | 3,343 | 1,341 | 1,373 | 6,057 |
| December..... | 2,203 | 686 | 723 | 3,612 | 2,020 | 774 | 772 | 3,566 |
| January..... | 1,794 | 526 | 576 | 2,896 | 1,420 | 422 | 381 | 2,223 |
| February..... | 2,113 | 494 | 440 | 3,047 | 2,299 | 550 | 519 | 3,368 |
| March..... | 9,106 | 1,655 | 2,319 | 13,080 | 8,147 | 1,586 | 1,640 | 11,373 |
| April..... | 14,576 | 2,936 | 3,939 | 21,451 | 13,450 | 2,706 | 2,971 | 19,127 |
| May..... | 15,224 | 3,800 | 4,952 | 23,976 | 13,864 | 4,218 | 4,490 | 22,572 |
| June..... | 10,648 | 3,373 | 3,786 | 17,807 | 9,200 | 3,098 | 3,025 | 15,323 |
| Total..... | 78,486 | 20,558 | 24,075 | 123,119 | 75,533 | 22,465 | 22,924 | 120,922 |
| From U.S. for fiscal year..... | | | | 5,245 | | | | 9,409 |
| Grand total..... | | | | 128,364 | | | | 130,331 |

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COMPARATIVE Statement showing the number of Immigrants arriving in Canada by countries, during the years ending June 30, 1903 and 1904, showing increase and decrease for each county.

| Country. | 1903. | 1904. | Increase. | Decrease. |
|----------------------------|---------|---------|-----------|-----------|
| English and Welsh..... | 32,510 | 36,694 | 4,184 | |
| Scotch | 7,046 | 10,552 | 3,506 | |
| Irish..... | 2,236 | 3,128 | 892 | |
| Total British..... | 41,792 | 50,374 | 8,582 | |
| African, South..... | | 21 | 21 | |
| Australian..... | 46 | 58 | 12 | |
| Austrian..... | 781 | 516 | | 265 |
| Bohemian..... | 16 | 91 | 75 | |
| Buckowinian..... | 1,759 | 1,578 | | 181 |
| Croatian..... | 1 | 16 | 15 | |
| Galician..... | 8,382 | 7,729 | | 653 |
| Hungarian..... | 2,074 | 1,091 | | 983 |
| Slovak..... | 82 | 116 | 34 | |
| Belgian..... | 303 | 858 | 555 | |
| Brazilian..... | | 2 | 2 | |
| Bulgarian..... | 7 | 14 | 7 | |
| Dutch..... | 223 | 169 | | 54 |
| French..... | 937 | 1,534 | 597 | |
| German..... | 1,869 | 2,966 | 1,097 | |
| Prussian..... | 5 | 11 | 6 | |
| Saxon..... | 13 | 8 | | 5 |
| West Indian..... | 17 | 52 | 35 | |
| Bermuda..... | 6 | 3 | | 3 |
| Greek..... | 193 | 191 | | 2 |
| Hebrew..... | 2,066 | 3,727 | 1,661 | |
| Italian..... | 3,370 | 4,445 | 1,075 | |
| Newfoundland..... | 335 | 519 | 184 | |
| New Zealand..... | 2 | 23 | 21 | |
| Polish..... | 274 | 669 | 395 | |
| Persian..... | 40 | 5 | | 35 |
| Roumanian..... | 437 | 619 | 182 | |
| Moldavian..... | 1 | | | 1 |
| Russian..... | 5,505 | 1,955 | | 3,550 |
| Finns..... | 1,734 | 845 | | 889 |
| Mennonites..... | 38 | 11 | | 27 |
| Spanish..... | 7 | 5 | | 2 |
| Swiss..... | 73 | 128 | 55 | |
| Servian..... | 2 | 10 | 8 | |
| Danish..... | 308 | 417 | 109 | |
| Icelandic..... | 917 | 396 | | 521 |
| Swedish..... | 2,477 | 2,151 | | 326 |
| Norwegian..... | 1,746 | 1,239 | | 507 |
| Turks..... | 43 | 29 | | 14 |
| Armenians..... | 113 | 81 | | 32 |
| Assyrian..... | | 22 | 22 | |
| Egyptian..... | 1 | 3 | 2 | |
| Syrian..... | 847 | 347 | | 500 |
| Arabian..... | 46 | 58 | 12 | |
| Maltese..... | 2 | | | 2 |
| Sicilian..... | 1 | | | 1 |
| Total continental, &c..... | 37,099 | 34,728 | | 2,371 |
| United States..... | 49,473 | 45,229 | | 4,244 |
| Total Immigration..... | 128,364 | 130,331 | 1,967 | |

SESSIONAL PAPER No. 25

The work of directing, sheltering and generally caring for immigrants and their families is now thoroughly well organized and effectively carried on; and this department of our work will be still further facilitated by the new accommodations at Winnipeg, when they are ready.

The chief medical officer, Dr. Peter H. Bryce, entered on his duties during the year and his report appears with the others herewith submitted. The proper organization of the work of medical inspection of immigrants was a much needed improvement.

Your obedient servant,

W. D. SCOTT,

Superintendent of Immigration.

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No. 1.

REPORT OF THE CANADIAN COMMISSIONER OF EMIGRATION IN
GREAT BRITAIN AND EUROPE.

11-12 CHARING CROSS, LONDON, W.C., June 30, 1904.

The Superintendent of Immigration,
Ottawa

SIR,—The emigration propaganda on this side of the Atlantic has been carried on during the fiscal year which has just closed very largely upon similar lines to the preceding two or three years. In the first place special care was exercised to retain connection and communication with previous inquirers at the various government offices throughout the United Kingdom. In addition, the addresses of particular classes likely to be interested in emigration, of the character desired in the Dominion of Canada, were procured through directories and voters' lists, and nearly a million publications were mailed to post office addresses.

A series of experiments have been carried on during the last two years, with a view of finding out the character of advertising which is likely to give the most satisfactory results. During what is known as the off-season last year a series of advertisements were continued in the religious press, circulating somewhat largely among what might be known as the restless or emigrating classes, and while these advertisements were running there was a fairly constant stream of inquiries resulting from them.

For the purpose of testing the relative advantages of advertising in what may be known as country newspapers and metropolitan journals, the regular advertisements during the present year were started in the country newspapers several weeks earlier than in the city or central press. The inquiries received at the various offices during the time that the earlier advertisements were running did not lead to the conclusion that this class of advertising furnished the best opportunities for reaching the emigrating classes. As soon, however, as the advertisements appeared in the metropolitan newspapers a marked change was evident in the interest created among the emigrating public by a very considerable addition to the inquiries and correspondence in the various offices.

Upon two or three occasions special arrangements were made with the most largely circulating newspapers for display advertisements of a marked and enlarged character, and the returns in the way of inquiries were singularly evident for several days following the appearance of these advertisements.

The result of these experiments apparently justifies the conclusion that a much more immediate return is secured from advertising in the large centres of population rather than in the rural sections. It does not, however, follow that the inquiries, as the result of these advertisements, come from the centres of population, as a careful analysis of the correspondence from time to time plainly indicates that the city papers, in point of fact, reach almost the entire emigrating classes throughout the United Kingdom, and that in the villages and rural towns the city papers have, in their various districts, apparently a more representative circulation than many of the so-called country or town publications.

Yet, while this is a fact, it is not going to be advisable by any means to avoid advertising to some extent in the rural press, although experience proves that there is a more immediate return, and it is a more profitable investment to advertise more extensively in the great centres of population rather than in the country publications.

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For several reasons, in many parts of the United Kingdom this year, the emigration movement to Canada has not been as large as the preceding year, which was a record one. This has been brought about very largely by warnings which from time to time have been issued from certain classes in Canada, and by the publication of letters from some who emigrated to Canada the preceding year, and whose experience did not come up to their expectations. It had to be expected that in the apparent boom of the emigration propaganda a reasonable percentage of undesirables would be drawn into the emigration movement. Such a contingency could not be avoided, and it was, at the same time, the most natural thing in the world.

So long as the emigration movement had not assumed large proportions it was a comparatively easy matter to discourage those who were brought into contact with the officials, who were not of a desirable class, or who were evidently not possessed of that force of character necessary to their success as pioneers in a new country. But when the movement reached its present proportions, so that emigrants experience difficulty in securing ocean transportation by the steamships sailing to Canada, it becomes practically impossible, by ordinary official work, to sift what might be known as the chaff from the wheat. The few failures who returned home became magnified by a section of the sensational press to the appearance of a much larger number, and their discouraging reports formed a subject for newspaper comment and local gossip. In addition to this source of discouragement, we have found ourselves from time to time brought into contact with an apparent organized conspiracy, finding expression in repeated warnings against all classes of emigration to Canada, these warnings very frequently being in the form of anonymous correspondence in widely circulating newspapers. There is ample justification for using the term 'apparent conspiracy,' in view of the fact that so many of the letters were evidently written by the same circle of individuals in Canada, although the place in this country from whence the immigrants in Canada claimed to have come was repeatedly changed. This became such a common occurrence that finally newspaper editors realized the situation, and subsequently referred editorially to the fact that letters similar to those that had appeared in their own columns were also appearing in local newspapers in different parts of the United Kingdom. The consequences attendant upon these warnings are not always, however, such as are desired by their anonymous authors. Their professed object is to deter undesirables, but they will emigrate without any positive encouragement, and they will not be deterred from going by any warnings. But the class of people who become nervous about emigrating, on account of the publication of such warnings as are referred to above, are the very people we all want, namely, those whose one object in emigrating is to engage in agricultural life in Canada.

Considering the large place Canada now occupies in the public eye here, in comparison to the somewhat meagre notices which Canadian affairs received a few years ago, it is, I suppose, inevitable that this publicity should bring with it a certain amount of detraction. This has been more markedly evident during the past year in the reports which from time to time have been cabled from Canada to the British press. Every alleged adverse circumstance or event in Canada has been magnified and amplified and exaggerated beyond the faintest semblance of truth. The winter in Canada was severe, but not half as severe as was represented in the cabled despatches from Canada. A fair illustration may be given by the appearance of a despatch in one of the more prominent London papers in the month of February, wherein the statement was made that the people of Toronto were alarmed, in view of the continued severity of the weather, and the impossibility of provisions and coal being carried to western Canada, that the spring would reveal the fact that almost the whole population of the west had either been starved or frozen to death. The break-up of winter, followed, as it no doubt was in several places in Canada, by minor floods, was also taken advantage of in despatches to this country, indicating that rivers and lakes had overflowed their banks, and that nearly half the country was under water. This was accentuated in a despatch from Montreal, with the prediction that the ice-shove at

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Montreal was going to result in such an inundation in that city that no residence would be left uncovered by water. As an outcome of such statements, many anxious inquiries were received in this office as to the probability of relatives and friends escaping these dire calamities, followed with expressions of opinion that Canada was truly an awful place to which to emigrate. It is safe to say that few countries in the world would allow such exaggerations, calculated to injure the progress and prosperity of the country, to go without steps being taken to punish the authors of them. It is not long since a great European country found it necessary to exclude from its borders the representative of one of our principal newspapers for an apparent exaggeration respecting the conditions of life in that country. Canada must expect to be the victim of exaggeration of this nature unless some provision is made with a view not simply of holding the correspondents themselves directly responsible for despatches so shockingly wanting in reliability, but it might be a question worth considering as to whether the channels of communication, *i.e.*, cable and telegraph companies, should not also be held responsible for absolutely untruthful reflections upon the conditions of life in the Dominion.

In respect to the complaints which have appeared in the newspapers in this country from time to time, from those who have alleged that they have not found things up to their expectations in Canada, efforts were made by the department upon every occasion to discover the names and addresses of the correspondents, and in every instance it was found that editors were not averse, after a reasonable presentation of the Canadian side of the case, to furnish the office with these particulars. Owing to the admirable system of keeping track of emigrants on their arrival in Canada, a report was received respecting every one of the dissatisfied correspondents in question, and little difficulty was subsequently experienced in securing the publication of some of these explanations, and thus the damage that had been done by the publication of the original letters was somewhat minimized.

As a reply to the accounts which were given by some of the returning emigrants, who had not found things in Canada equal to their expectations, steps were taken with a view of procuring from responsible and reliable settlers in western Canada letters giving a resumé of their experiences since their arrival in the west. These letters were almost invariably accompanied by a statement as to the particular county in England from which they had emigrated. It is a pleasure to note that no difficulty whatever was experienced in securing for such letters the widest possible publicity. In fact it was found that newspaper proprietors were always pleased to give these letters, bearing a local aspect, a prominent place in their columns. The prosecution of a propaganda of this character will be found not only profitable to the department, but furnishing a form of information which will be invariably regarded as of a most authentic and reliable nature. A favourable consideration to an application to country newspapers to publish letters of this kind can always be depended upon. The importance of carrying on this particular form of propaganda cannot be too strongly impressed upon the department.

Emigration, in the great majority of cases, is looked upon as a very serious step, but it is frequently made much more so by the accounts which are written home by young fellows in respect to their experience in Canada. Not infrequently complaints from parents and friends reach this office, and not a little trouble is experienced in the endeavours which must be made to allay the unnecessary anxiety which is the result of these exaggerations. Probably no fairer illustration of this can be given than the following extracts from correspondence.

In this case two young fellows, who had been thoroughly instructed as to the hardships which they would have to undergo, decided to settle in Ontario, with a view of learning the conditions of agricultural life previous to proceeding west to the free grant lands. They were furnished with letters of introduction to Mr. Persse, the Ontario government representative at the Union station, Toronto. A few weeks after their departure the following letter was received at the office from the mother of one of the young fellows in question. Of course, the names and addresses are omitted :—

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'SIR,—At the end of November the emigration agent in London for the colony of Canada told my son and his friend that if they went at once to Toronto there was a big demand for young men of good character and they were sure of a comfortable home and a salary. They therefore went on the 3rd of December. When they arrived at Toronto they went to gentleman they had been sent to from the officer here (in England), and he asked them what possessed them to come to Canada in the winter? They told him who had sent them, and he said it was ridiculous the London agent sending them, as there was absolutely no one required in winter, and he had nothing to recommend them to. Of course, they were fearfully 'cut up' at such a 'slap in the face,' and told him so. After no end of talk, he at last produced a letter from a farmer saying he would give work to a young Englishman, but no salary. As their money was nearly gone, and they were stranded in a strange country, they felt obliged to take this offer, and after three days' journey in the bitter cold arrived at a little village.....at 11 at night, and had to put up at an expensive hotel, the only place which they could get to late at night. Next-morning they started off and found the farmer, and he took my son, but could not do with two. However, he offered Mr. _____ a bed, and next day Mr. _____ found a place on same terms. No salary, but board and residence. The work is fearfully hard, the commonest personal cleanliness cannot be had, and these two gentlemen are given horrible duties to do, such as killing poor pigs and other animals, &c., &c. The mere hard work they were and are willing to do, but they were never given to understand they were to be butchers and scavengers. Would you be so good as to try if anything can be done to improve this horrible life for these young men—bred and born with refinement and cleanliness. I am quite heartbroken. Oh, God help my poor boy! I cannot raise money or I would go out and take him from these horrible people. Excuse this writing. I cannot see to write for the bitter tears of misery at my boy's lot, and Mrs. _____ is the same.

'I am, sir, your obedient servant,

' _____,'

It may be said in passing that the village referred to instead of being three days' journey from Toronto is really less than as many hours. A departmental reply was sent to the letter in question, in which the mother was assured that there was possibly some exaggeration in her son's account of the conditions, and that the correspondence would be forwarded to Canada, with a view of getting a report from the government officials, which would be forwarded to her at an early date. But this only resulted in another hysterical effusion from the good lady, in which she gave the assurance that her son was, 'like all blue bloods, willing to work, but it was never contemplated that he was to be a butcher,' and the letter concluded as follows:—

'One other thing I may mention is that there is no means of personal cleanliness on these farms. They are given a small tin pan, about half the size of an English wash-hand basin, to wash in. Surely water could be heated and given these poor young men for personal cleanliness. There is a lake handy. I have passed many a tearful night praying to God for my boy's sad fate. He refuses to return, 'sink or swim,' as it costs £30 to get proper Canadian clothes, &c., and passage. His clothes are of no use in any other colony or here. My son has to buy food, the long hours between meals he can't stand. His friend is nearly starved. You quite understand my son has no complaint to make about the farmer he is with. The people are all kind to him, and he likes them and they him. I am glad also they are strict teetotalers, as I and my son are, and they are free from the usual vices on Canadian farms—swearing, &c. Thank God for this.'

Following the inquiry by the departmental officers in Canada, letters came to hand from the young men, the following being from the son:—

'DEAR SIR,—I have just received a letter from my mother, and I am very much surprised to hear that she wrote to you to complain of the way in which we were treated.

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'She has made a great mistake. I like the work very much out here, and I only wrote to her in a joking way, telling her of the ways of the people here.

'When we got to Toronto we were told by Mr. Persse that there was very little to do at this time of the year. He then said that Mr. _____ at _____ wanted two men. When we arrived at _____ Mr. _____ said that he did not want any one till April, but that if we liked to stay with him we could, but that he would not pay us any salary. We accepted his offer, and I am now with _____ and Mr. _____ is with his son. I am enjoying myself very much and have no intention of returning to England.

'My mother misunderstood me, I think. I said that it took us three days from Halifax. I am sorry she has caused you so much bother.

'Believe me, faithfully yours,

'_____,'

It is hardly necessary to add that copies of this correspondence were sent to the mother, but the good lady was not prepared to acknowledge that her son would joke with her upon such a serious matter, and the subject was then allowed to drop. In the meantime information has come through other sources in regard to the young men in question, giving abundant evidence that they not only were well treated and perfectly satisfied with their lot, but that their prospects for success in Canada cannot be doubted. Nevertheless the exhibition of exaggeration which actuated the young men in question has only been too plainly evident in cases almost without number, very many of which have found their way into the columns of the British press, and in respect to every one of which as satisfactory an explanation can be made as of the case in question.

A pronounced effort has been made to impress upon the emigrating public the character of immigrants desired by Canada. Nothing has been left undone, both in the official advertisements and in the publications issued with official authority, to make the wishes of the department perfectly clear to the emigrating public. It has been persistently pointed out that Canada wants workers, the following classes being particularly designated:—

1. Farmers or persons with experience in agricultural life.
2. Men who have been accustomed to hard work.
3. Persons without experience in agricultural life, but who are prepared to devote themselves to that occupation, and who are willing to accept employment for the purpose of acquiring the necessary knowledge regarding agricultural methods in Canada, and
4. Domestic servants either for rural or urban life.

Notwithstanding the efforts which have been made in directing attention to the fact that these are the only classes among whom the department carries on a propaganda, inquiries without number have continually been made as to the possibility of securing employment in almost every other calling and trade. The answers to these inquiries have, by official authority, invariably been that the department is only interested in furthering a movement among the population referred to in the foregoing.

But as might be expected, the failure of the department to furnish information respecting other callings has given rise to the establishment in London, Glasgow, Liverpool and other great centres of population of so-called societies and bureaus having, in addition to the advantages accruing from the general government policy, the object of carrying on a propaganda among various other classes. Some of these organizations are reputable booking agencies and have established important connections both in the Dominion and the United Kingdom. For a time it was not considered inadvisable, when direct inquiries were made as to the responsibility of some of these institutions, and when investigation revealed the fact that direct applications had been received by these organizations for labour of various characters, to reply that the society in question was evidently or apparently carrying on a reputable business. Later, however, it was believed to be advisable that no countenance should be given

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to booking agents or associations in regard to any promises which they might be in a position to give to their clients respecting labour of any character other than on the lines indicated in the general policy of the department.

It is a serious question as to whether it is wise here to place some of these organizations, which after all are reputable booking agencies, in the same category as those carrying on a notoriously improper business. But the difficulties which appear upon every hand by giving any booking agencies special inducements, are so many that it is believed that the best course to adopt is one of strict neutrality, in order to avoid the serious complications which sooner or later seem to force themselves on this branch of the department.

There can be no question but that certain booking agencies in the United Kingdom are rendering Canada a very considerable service in an exceedingly active propaganda, carried on by an extensive distribution of literature, and a liberal expenditure of money in advertising. While there are few persons attached to the booking offices in this country who have any personal knowledge of Canada, it is nevertheless true that the work of the department would be hampered if the cordial co-operation of these agencies was not so freely given. This co-operation with the department may not be due to any special love for Canada, but because booking passengers to Canada is a paying business. When so many of them desire to carry on their business in a reliable manner, and where they can be held responsible by emigrants for any improper inducements, through which persons may have been induced to emigrate to Canada, it is somewhat difficult in answering inquiries either personally or by letter to repudiate entirely their co-operation. With a view, however, of making the policy of the department fully known to the emigrating public from time to time, this office has notified the public through the press that the Dominion government has not authorized or sanctioned, nor in any way given its approval to emigration agencies or bureaus or societies carrying on a propaganda with a view of inducing skilled artisans or mechanics to emigrate to Canada. This declaration of the policy of the department has been periodically reiterated, not only by advertisements, but in interviews, and also in the form of despatches through the British Press Association. But while such agencies might be regarded as having a legitimate aim, others of a decidedly reprehensible character continue to flourish. This is more particularly the case in respect to what is known as the farm pupil fraud, *i.e.*, the payment of premiums for finding positions for applicants with Canadian farmers. One such has been carrying on an extensive business for several years, notwithstanding the departmental warnings to the public in which, in no mincing terms, attention has been directed to the absolute waste of money occasioned by negotiating with frauds of this character. The one to which special reference is here made, continually advertises for a 'limited number of farm pupils,' for whom positions can be secured in Canada upon the payment of a moderate premium, and correspondence is invited. The reply invariably gives the assurance of employment through a reliable Canadian agent, generally referred to with a professional prefix to his name, upon the payment of from \$125 to \$150. This sum includes either steerage or second cabin ocean accommodation. This allows a margin of profit for the promoter of from \$100 to \$115 upon each adult. This firm circulated alleged letters, which were being used in the form of recommendatory epistles, from Lord Roberts, Lieutenant-Governor Forget, Chief Justice Sifton, Judge Barron, and others well known in Canada. It is needless to say that as soon as the fact of these letters being used in this way was brought to the attention of the gentlemen named, they immediately notified the firm in question to withdraw their letters, as the letters had never been written to the firm in question, nor were they ever intended to bolster up an institution of this character. It may well be wondered how anything of this kind can flourish in face of the continual warnings which have been issued by the department, to say nothing of the efforts persistently made to impress upon the public here that all the work which such a firm may give an assurance of doing, forms part of the general work of the Immigration Department. But Englishmen cannot under-

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stand the possibility of a government offering to do anything apparently for nothing, nor can he understand how the department of a government undertakes to find positions with farmers for emigrants from this country. The same idea is prevalent in connection with a good deal of the correspondence in the various departmental offices in the United Kingdom. The department advertises that pamphlets and information can be procured free, nevertheless very many correspondents, in making a request for pamphlets and publications, inclose a penny stamp for a reply. This is the principle upon which an Englishman does business. He never gives anything for nothing, and he cannot understand a government either giving pamphlets for nothing or assisting emigrants to find positions without the payment of a fee. He appears to think, therefore, that there is something wrong, or that he has misunderstood the meaning of the advertisements, and he will, therefore, go to the place where a payment is asked for doing exactly the same thing which the department is prepared to do without any charge. That this principle prevails throughout England, more especially, is only too evident from the number of agencies of one kind and another which have been established in different parts of the country, where agents advertise that, upon the payment of a shilling or two, reliable information respecting Canada can be procured and guarantees or letters of introduction insuring employment on arrival in Canada can be procured. On representations from this office, the police have investigated the conditions under which certain parties, from time to time, have endeavoured to transact business on these lines, resulting in the closing up of the agencies, and some times in the absconding of the principals. This remark, however, does not apply to the farm pupil fraud business. That concern still flourishes and no doubt will continue to do so, so long as the principals in the company both on this and the other side of the Atlantic, find it profitable to mulct the unsuspecting emigrant, and it is quite safe to say that the unsuspecting or gullible prospective emigrant will be found here so long as time lasts.

It was considered advisable two or three years ago to effect a radical change in the mode and manner of advertising, and consequently the expense under this head was very considerably increased. The large display blocks which have been adopted have quite realized the expectations indulged in when the decision was reached to try, as a matter of experiment, this additional expense. These advertisements, large yet concise, have invariably attracted the attention of intending emigrants; so much so in fact since this form was adopted that the correspondence in this office not only increased enormously, but continues to retain its large proportions, notwithstanding the many reasons which might be given why the removal to the premises on Charing Cross, and consequently the opportunity afforded for an increased number of personal inquiries, might have justified the fears that the increase in the number of letters could not be maintained.

As the result of very careful inquiry, the decision was arrived at early in the year to partially change the policy of the department respecting exhibitions and shows. A glance at the expenditure reveals the fact that for many years these have furnished one of the large items of expenditure. The view has been generally held that exhibitions or shows are attended by the agricultural or rural population, and therefore furnished an excellent advertising medium, and a most desirable medium for the distribution of literature among the classes especially desired by Canada. And yet appearances indicated that there had not been a satisfactory return for the attention that this phase of the emigration propaganda had received. Very frequently the agricultural exhibits of Canada were dwarfed with the enormous displays of seedsmen; and Canada, therefore, appeared to occupy a relatively less important position than the agricultural resources of the Dominion deserved. A Canadian exhibit invariably attracted interest, provided, of course, it was upon a reasonably large scale, but if, as sometimes occurred, and particularly at the smaller shows, the exhibit was apparently of a less important character than many others, the relative position could scarcely be regarded with satisfaction. These exhibitions and shows usually involve an expendi-

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ture running from £10 to £20, including the rental of space, erection of stand, freight and labour charges, travelling and other expenses. It would not be fair to arrive at the conclusion that, because these exhibitions had been carried on for 25 years, and that as a result no special interest was created respecting Canada, whereas as soon as other methods of reaching the public were adopted a considerably increased interest was evident, the exhibitions had served no purpose. And yet a careful perusal of the correspondence and personal contact with inquirers, force me to the conclusion that the expense involved in carrying on that phase of the emigration propaganda might be diverted to other channels, with more favourable prospects for a satisfactory return, than by continuing as heretofore.

While it has been considered advisable to effect a change from this particular line of policy, it must not be supposed that advantage is not taken of the gatherings at exhibitions and shows. Arrangements are made whereby in the more important districts the circulation of literature is carried out with a good deal of efficiency and care, and while undoubtedly a great deal of printed matter reaches those who may take no interest in emigration, yet every effort is being made to ensure a distribution among classes likely to emigrate.

It cannot be claimed that this change in the policy of the department is in accordance with the views of all the agents. There certainly is a difference of opinion on this question; nevertheless this office is not without a confirmation of the wisdom of the judgment which finally settled this phase of the work for a short period at least. Expenditure of almost any character has a tendency in some degree to keep the subject of Canada and Canadian emigration to the front, and if there was no limit to the demand which could be made upon the appropriation for emigration work, I do not know but that this phase might well have been continued; but I am very strongly of the impression that the amount of money involved in the expenditure of this character of an emigration propaganda can be spent in other avenues with much better advantage.

The carrying on of an emigration propaganda, either here or elsewhere, can only be done successfully by constant advertising and unvarying attention to all the details of office work. This is an aspect of the public service that requires the undivided time and attention of all the officials upon this side of the Atlantic. It is, therefore, impossible to associate with the work in this office the duties pertaining to other branches of the public service. The public interest must be watched and gauged, and no opportunity should be allowed to pass to have Canada presented to the prospective emigrating public in a proper and suitable manner. A plain statement of facts, supported, as far as possible, by authenticated experience of successful settlers, furnishes a sufficient basis to induce an earnest inquiry for additional information.

Upon this question one might fairly be pardoned for directing attention, at least, to the necessities of a channel for communicating items of reliable Canadian news to the British press. It has been regarded as desirable that the Canadian press should be furnished with news from sources upon this side of the Atlantic which are not only reliable, but whose responsibility can readily be noted. It is equally desirable that the population of this country, and of the continent of Europe, should be presented with true aspects of Canadian news, Canadian progress, and Canadian development. This could be done in a partial sense by epitomizing the more important Canadian news immediately on the receipt of Canadian newspapers, and this is very frequently done by officials in this office. But it can only be carried out regularly during what might be termed the off-season. When the departmental work is rushing, as it invariably is between October and June, but little opportunity is offered, even after office hours, for that attention which this subject requires, and which such a question undoubtedly deserves. If such a service, as is here suggested, could be inaugurated in Canada, whereby important political, social and commercial items of news, incidents in the progress and development of the country, could be epitomized and forwarded to this side of the Atlantic, and then transmitted to the press as early as the Canadian

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newspapers are received at the offices in question, much beneficial and advantageous publicity could be secured to Canadian interests. But if such a service could be inaugurated by cable by some one specially qualified for newspaper work, and who also is in touch with Canadian life and character, much greater advantage would accrue, and the immediate return for which, from a purely emigration standpoint, would make the service invaluable. No trouble whatever would be experienced upon this side of the Atlantic in securing publicity for items of news coming through such a source in almost all the great newspapers.

The emigration business of the year, not only in Great Britain, but on the continent, has been somewhat unsettled by the complications arising out of the break-up of what is known as the North Atlantic Steamship Conference. The gradual absorption of continental business by the continental lines eventually culminated in the successful efforts which were made by the Cunard Steamship Company to secure a monopoly of the emigrating traffic from one of the Hungarian ports in the Adriatic. This had been regarded by the Hamburg-American line as one of the special preserves of that company. The inauguration of this British service to New York, via the Mediterranean, resulted in a partial Trans-Atlantic rate war being immediately established. The German lines advertised a lower rate for Hungarians, via Hamburg and Bremen to New York, than was given to emigrants from localities more contiguous to their ports of embarkation. The Hamburg-American line also started a Scandinavian service, with a view of entering into competition with the Cunard line, by which the rate from Norway, Sweden, Finland and Denmark to New York was reduced to £3, being about one-half the ordinary rate. This reduced rate was effective for some weeks previous to the establishment of the same rate to Canadian ports, the result being in the probable emigration of considerable numbers to the United States who otherwise might have proceeded to Canada. Following the rate war upon the continent, similar proceedings were taken by the continental lines, and one of the American lines, sailing from Rotterdam, Cherbourg and Southampton, causing a considerable rush across the Atlantic of many desirables as well as undesirables. Eventually other Trans-Atlantic steamship companies, including those sailing direct to Canada, were forced into the rate war, and for a few weeks there was a considerable rush to the western shores of the Atlantic. It is difficult to say in how far the reduced rates upon the great New York liners actually interfered with the emigration to Canada. There is scarcely a question but that it did to some extent. At the date of writing, however, although the rate war is still continuing, there does not seem to be any appreciable difference between the emigration movement in comparison to the time preceding this great reduction in rates.

In regard to the emigration movement from the United Kingdom, a cursory glance at the official returns proves the very important place now occupied by British North America as an objective point for British emigrants. During the year just closed a glance at the figures proves that, of the entire emigrating population from the United Kingdom, Canada secured not less than 32 per cent, which, by comparison, shows an enormous increase over 1899, when the Dominion only received about 11 per cent of the British emigrants. Making use of the same authority for a comparison of the volume of British emigration to the United States and British North America, the figures show that the proportion secured by Canada was 17.75 per cent in 1899, which was increased to 48 per cent in 1903. While the figures as furnished by the Board of Trade in Great Britain may not be absolutely correct as to the particular number of emigrants sailing to Canada, the percentage of emigrants to the Dominion, in comparison to the entire returns, may be taken as fairly accurate. These figures apparently justify the vastly increased expenditure incurred by the department in carrying on an emigration propaganda in the United Kingdom, and vindicate the hope that was expressed, that the inauguration of such a propaganda would result in a considerable accession of British population to the Dominion.

It must be borne in mind that, while emigration from the United Kingdom is free and untrammelled in so far as the destination of the emigrants is concerned, restric-

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tions are placed upon shipping by which the accommodation has been much improved, and the interests of the emigrants have not been neglected, and, therefore, steamships sailing from British ports have much more to contend with on account of government interference than emigrants either from French, German or Scandinavian ports. In vessels sailing from Great Britain emigrants are less crowded, and much more stringent sanitary measures are brought into operation than from foreign countries. Competent surveyors and medical officers are responsible for the proper accommodation on board ship. Every vessel is inspected before a voyage, care being always taken that only the correct number of passengers are carried according to the space provided, provision being made for a larger area for each passenger than is insisted upon in the sailings from many continental ports. Independent local medical officers are also responsible for emigrants being free from infectious diseases. The recent provisions in the Dominion for the deportation of undesirable arrivals has resulted in a much more careful examination of the state of the health of emigrants than heretofore.

An emigration propaganda cannot be carried on in all the continental countries in the same open manner as characterizes the work in the United Kingdom. Nevertheless, without violating their legislative enactments or police regulations, stringent efforts are being made to distribute among the emigrating classes information respecting the development and resources of Canada. All this work, however, has to be carried on with very great care in consequence of the numerous restrictions. Up to the present year a considerable outlet for continental emigrants was taken advantage of by the fact that the Elder-Dempster Steamship Company had remained outside the North Atlantic Steamship Conference, and was, therefore, not subject to the restricted number of continental emigrants which could only be carried to America by other steamship companies sailing from British ports.

Following the acute relations between the German lines and the Cunard line, referred to elsewhere in this report, the German companies as a set-off to the exclusive sailings of the Cunard Steamship Company from the Hungarian ports, succeeded in having control stations established on the German border towns, where emigrants from Russia, Austria and Hungary had been accustomed to enter Germany for the purpose of passing through that country to ports on the North Sea. The effect of the establishment of these control stations, ostensibly for quarantine purposes, was that no emigrants, having transportation for America by any other steamship line than one specially licensed by the German government, could enter Germany for the purpose of embarking either in Great Britain, or by any other line than the North-German-Lloyd and the Hamburg-American Steamship Companies. The effect of this was that immediately these German companies secured an absolute monopoly of the continental emigration traffic sailing from northern European ports, and, as a natural result, the emigration rates were increased by thirty marks per head.

In the meantime one of the steamship companies which heretofore had carried continental emigrants from British ports ceased to carry any other than British passengers, but established a service from one of the continental ports for European emigrants entirely.

The increase in the rates from the continent, which was immediately made operative, with the exception of the situation already referred to in regard to Hungary, had a very deterrent effect upon the emigration movement from the continent to Canada. This, taken in connection with the war between Russia and Japan, and the consequent difficulties attendant upon German colonists continuing to emigrate from Russia, as heretofore, explains the decrease in the number of continental emigrants. But it is satisfactory to note that everything indicates that the decrease is not due to any want of interest in Canada, or failure to carry on an active propaganda, and I am quite satisfied that the European emigration movement will shortly assume even much larger proportions than in 1903.

In connection with the propaganda upon the continent, it might be as well to note that absolutely nothing is left undone with a view of discouraging undesirable classes

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from emigrating to Canada, and with the object of encouraging only those whose presence in Canada might be fairly regarded as likely to add to the physical and intellectual advancement of the country.

The interest in emigration to Canada generally is shown by the increasing volume of correspondence with the offices and in the number of personal inquiries. In connection with the former, not only are the inquiries from Great Britain more numerous than heretofore, but also from the continent of Europe and Scandinavia as well, while every mail from South Africa, Australia and India brings scores of letters asking for more detailed information respecting the possibilities of success in the Dominion.

The number of personal inquiries at the various offices throughout the United Kingdom give evidence of a more marked interest than ever in Canadian affairs. In regard to the London office, it can be truthfully said that from the hour of opening in the morning until closing time there is a continual stream of personal inquirers, not infrequently a dozen or more being present together. No better indication could be given of the wisdom shown by the decision of the department in leasing the premises at Charing Cross. An ever changing advertisement is available by keeping the windows properly decorated with views of Canadian scenery, and exhibits of Canadian natural products. The importance attached to these presentations of the progress, development and resources of the Dominion is seen in the interest that is always taken in the windows by the constantly passing crowd.

I am pleased to say in respect to the officials attached to this branch of the Department of the Interior, that they have given marked evidence of their interest in the work, and their determination that personal interests must in every case give place to official duties, and in no particular has there been shown a want of loyalty to departmental interests.

Your obedient servant,

W. T. R. PRESTON,
Commissioner of Emigration.

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No. 2.

REPORT OF G. H. MITCHELL, CANADIAN GOVERNMENT AGENT AT BIRMINGHAM.

43 CANNON STREET, BIRMINGHAM, July 6, 1904.

The Commissioner of Emigration,
London.

SIR,—I beg to submit my report for the year ending June 30, 1904.

Taken on the whole, the pressure of work was not as great as during the previous year, but I can make no comparison in regard to the correspondence owing to the different methods pursued in the two periods. The number of personal inquiries, however, has been satisfactorily maintained, and a very good emigration of desirable people has taken place; one movement is particularly noteworthy,—that of a number of members of the Society of Friends who are founding a colony, which is expected to reach large dimensions, in the Saskatchewan district. The steamship agents in Birmingham and a few other places have had a record year, but the emigration from the Midlands, and indeed from England generally, may show a slight diminution, accounted for by different steamship agents in various ways, according to local circumstances; it would perhaps be impossible to maintain the extraordinary enthusiasm which prevailed last year, and the history of all emigration proves the rise and fall of the movement, but there have undoubtedly been adverse influences which in some measure, difficult to estimate, have affected the result of our work.

In the fall of 1903 I attended several agricultural shows with exhibits of Canadian produce, and conversed with and distributed literature among large numbers of agriculturists; this season arrangements are being made to distribute our pamphlets at, but without taking part in, the shows, and in this way a larger area is being covered.

Full advantage was taken of the lecture season, two large meetings being held in Birmingham, one addressed by Mr. Duncan, of the London office, and the other by Mr. Hanson, of High River, Alberta; in addition there were others not only in Birmingham, but in many other places, and the lantern slides at my disposal were in constant use.

For a couple of weeks Mr. Drayson, of Neepawa, was in attendance at the office, and later, for ten days, Mr. James Dale, of Argyle township, Manitoba. Many took advantage of their presence to obtain accounts of their personal experience; interviews were published in the principal newspapers, and Mr. Dale made a tour of the Midland district, lecturing and disseminating information. Several other western Canada visitors were in the district at various times, and the most was made of their presence in emigration interests.

In accordance with my instructions I have resumed visiting the steamship agents during the last few months, in any time that can be spared from the office, and this work promises excellent results; much can be done by personal intercourse which cannot be accomplished by correspondence; one can impart to the agents some of one's own enthusiasm, give useful information and make suggestions as to methods of working, and in short revive or stimulate an interest which is apt to fail for want of personal encouragement; on the other hand, your agent learns the views of the steamship agents, their requirements in the way of printed matter, &c., and is enabled to keep in closer touch than is possible in any other way. Advantage is taken of these journeys to interview any of my correspondents, and any of the steamship agents' clients whom it may be possible to meet.

Large supplies of pamphlets have been distributed through various channels, and the wants of steamship agents in this particular have received prompt attention.

Your obedient servant,

G. H. MITCHELL.

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No. 3.

REPORT OF H. M. MURRAY, CANADIAN GOVERNMENT AGENT
AT CARDIFF.WESTERN MAIL BUILDINGS,
CARDIFF, WALES, June 30, 1904.The Commissioner of Emigration,
London.

SIR,—I beg to present my annual report of the emigration work done in Wales and the English counties in my district during the fiscal year just ended.

As the British Board of Trade include all Welsh emigrants in their English returns, I have no data to go upon as to the number of Welsh people who have left for Canada. I think, however, I am correct in saying that there has been an increase over last year, and so far as my information goes, this also applies to the neighbouring English counties. The working population of North and South Wales, Monmouthshire and Herefordshire are exclusively engaged either at coal mining, dock labouring or agricultural pursuits, and with regard to the latter, it is more of a pastoral nature (sheep and cattle-raising) than that of general agriculture. There are no large centres of population, with the exception of Cardiff, Swansea and Newport, and in these towns the principal, in fact the almost exclusive business is that of coal exporting. The population of Wales is 1,698,148, Monmouthshire, 316,864, and Herefordshire, 112,549, giving a total of 2,127,561—a small number considering the large acreage covered. From these figures it will be seen that the number of emigrating agriculturists can never at any one time attain large proportions; but if the numbers are small the quality is good. The Welsh are a sturdy race, and those of them who are engaged in farming work are of the best class, but they are hard to move. Home ties and old associations prevail more with them than, I think, either the English, Scotch or Irish. Their poetic nature, the old Welsh language in which the history and poetry of their country are embodied, all combine to strengthen their attachment to the 'Land of their Fathers' as they so aptly term it.

I have endeavoured in every way to encourage emigration. As I have said, we have only coal miners and agriculturists to draw from, but many of the miners have been upon the land in their youth, a number of this class have recently gone to Canada with the intention of resuming the same vocation, and I am sure they will make excellent settlers. Quite a number of young men of no previous experience have also left for the purpose of gaining a knowledge of farming operations with the intention of later on taking up land for themselves.

With regard to 'mechanics and tradesmen' generally, I have scrupulously followed out the direction of the deputy minister and yourself 'not to actively encourage the emigration of such,' advising them that if they chose to go out they do so on their own responsibility.

I have attended so far this season two agricultural society shows—Swansea and Hereford. Both of these meetings were very successful, the attendance being large and of a good farming class. Our exhibits were much admired, and the requests for information and literature very gratifying. I am in hopes that the work done at these shows with the moderate expenditure incurred will not have been in vain.

I have visited several of the booking agents in the immediate neighbourhood of Cardiff, but now that the rush is over will carry out the programme endorsed by you,

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viz., that of making a general visitation through North and South Wales, making my visit known to the farmers by means of the posters supplied from your office.

During last winter season our sets of lantern slides were in almost constant use, and I had some very gratifying letters as to the excellent work done in this regard, the views of Canadian life and work being a valuable means of educating both young and old as to what Canada really is, and what it can offer to the intending settler.

I was pleased to have the service (if only for a short time) of a practical Canadian farmer. Such men in my opinion do a vast amount of good, and if it were practicable, I should be glad to have one attached to this office for a few months every year.

I think that I have gone over the principal points of my work, and can only say that I will continue to do everything possible to encourage and increase the emigration of desirable emigrants from the various districts entrusted to me.

Your obedient servant,

H. M. MURRAY,

Agent for Wales.

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No. 4.

REPORT OF ALFRED F. JURY, CANADIAN GOVERNMENT AGENT AT LIVERPOOL.

OLD CASTLE BUILDINGS, PREESON'S ROW,
LIVERPOOL, ENGLAND, July 14, 1904.

W. T. R. PRESTON, Esq.,
Commissioner of Emigration.

SIR,—In submitting my report for the year just closed, I may say that there is nothing of special importance to refer to. The work has been of the usual kind, with the exception that during the last half of the financial year I have not attended any agricultural shows on account of instructions received from you.

During the lecture season I was exceptionally busy, delivering about sixty lectures, most of which were very successful, and from which I have reason to believe very fair results have followed.

Three sets of slides have been placed at my disposal, and have been in fair demand.

In addition to the intending emigrants that I have visited in the various towns in this district, I have been interviewed by hundreds at this office who have required information other than that given in the pamphlets. Many of them have enough capital to take up a homestead and start for themselves after acquiring sufficient agricultural and local experience.

For some unaccountable reason, our correspondence has fallen off enormously during the present year, but I think the number of those leaving the district for Canada has been nearly as large as last year.

You will notice in my report of last year we received 10,392 letters relating to emigration; this year the number is 4,036. From July 3, 1903, to June 30, 1904, I have issued 1,346 letters of introduction to people from this district, and I have every reason to believe that they all left these shores for Canada.

I have received a number of trade inquiries as usual, but most of them have been referred to the various commercial agents in this country, but where it has been absolutely necessary, they have been attended to at this office.

From July 1, 1903, to June 30, 1904, sixty-five parties of children, consisting of 2,160 individuals, sent out by philanthropic societies, have been inspected, and the usual certificates given.

From July 1, 1903, to June 30, 1904, a little over one thousand letters have been dealt with by the office in connection with the emigration department of the Society for Promoting Christian Knowledge, in charge of the Reverend John Bridger.

Your obedient servant,

ALFRED F. JURY.

No. 5.

REPORT OF JOHN WEBSTER, CANADIAN GOVERNMENT AGENT AT DUBLIN.

14 WESTMORELAND STREET, DUBLIN,
July 25, 1904.

The Commissioner of Emigration,
London.

SIR,—I have the honour to submit a short report of my work in Ireland for the twelve months ending June 30, 1904.

The year has been a busy one and no effort has been spared to keep Canada to the front. During the summer months, in addition to my office duties, I attended the important agricultural shows, the monthly fair or the weekly market. These, of course, are the places where the farmers congregate, and where an opportunity occurs for meeting them and distributing literature. At the agricultural shows I secure space for the erection of a small tent; this advertises the fact that I am on the ground, where I can be seen and pamphlets secured. I am interviewed on these occasions by many desirous of information regarding the Dominion. I do not consider that any advantage to Canada is gained by an exhibit of products unless an elaborate and careful display is made; far better no exhibition than one which does not do the country credit. This being my opinion, I only make display of products at important points, such as the Royal Dublin spring show or winter show, or the Cork show, &c. At the small events, I simply visit the show, erect tent, meet the people and distribute literature.

During the winter months I delivered a number of illustrated lectures and endeavoured to fulfil as many engagements as I secured invitations for. In the illustrating of lectures I use a number of slides made from photos taken by myself when visiting Canada in 1902. I need not say that this increases the interest of the lecture, not only to the audience, but to myself. I have the greatest faith in the utility of lecturing for driving home truths relating to the agricultural opportunities which obtain in our country, especially so when the lecturer, like myself, can speak from long personal experience. I have in my mind one particular lecture which I delivered in Limerick before a young men's association, as a direct result of which I was gratified to find that quite a number of young men went to Canada. Facts like this are encouraging, and I purpose next year to carry on a vigorous lecturing campaign. The visit to Canada which I have been instructed by the minister to take this summer, will be of the utmost value to me in bringing my information up to date, and will materially help me for next year's work. I propose taking advantage of the opportunity for securing further pictures as illustrations for my lectures.

Very vigorous measures have been instituted in Ireland by the 'Anti-Emigration Society' and kindred societies to check the tide of emigration from Ireland, and in various ways I have found their efforts handicap my work, some newspapers not accepting our advertisements for insertion, various agricultural societies refusing us space at their shows, and in many cases I have found it difficult to secure lecturing engagements, but in spite of all opposition we keep Canada well to the front, and I am glad to say that the past year shows a decided improvement on the preceding one, the figures, according to the Board of Trade returns, reading 2,658 for 1904, as against 2,201 for 1903. I am hopeful that these figures may be increased when the statistics

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compiled in London are returned. I may say that the large proportion of Irish emigrants south of Ulster sail to Canada by way of Liverpool, and numbers of them are registered on the ship's manifest, from which the Board of Trade takes its returns, as English emigrants. It is satisfactory to mark an increase in Irish emigration to Canada, in view of an appreciable decrease of emigration from Ireland to the United States for the same period.

The Dublin office has served a useful purpose during the past year, there being many callers, and, especially during the time when the advertisements in the papers were appearing, a large correspondence to attend to. I may also mention that the office has been taken great advantage of by Canadians visiting Dublin.

Your obedient servant,

JOHN WEBSTER.

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No. 6.

REPORT OF EDWARD O'KELLY, CANADIAN GOVERNMENT AGENT
AT BELFAST.13 QUEEN'S SQUARE,
BELFAST, July 1, 1904.The Commissioner of Emigration,
London.

SIR,—The emigration from Ulster in the past year has been satisfactory, taking into account the fresh difficulties placed in the way of agents by the position taken up by the 'Anti-Emigration Society.' I attribute the good results to the continued prosperity of Canada, the success of emigrants reaching there, and the very efficient advertising of the department, combined with plentiful supplies of up-to-date literature to the agents, of which, in my case, I had some thirty thousand pamphlets, maps, and leaflets taken home by visitors at my stand of Canadian exhibits at the various show fairs in Ulster.

I had 1,468 callers at my office in the past year, and attended to 1,434 correspondents, almost a thousand less than in the previous year. This decrease in correspondence I can explain by the fact that I did not exhibit at show fairs in 1902, having been in Canada during the show season, whereas in 1903 I had my stand at most of the fairs, well supplied with literature, and largely patronized by the class most required in Canada. It would be impossible for me to ascertain the number leaving my district for Canada since January 1, 1904, but I believe the number was as large as in the first six months of 1903, and included a much larger proportion of second cabin passengers. I may here mention that the lowering of the ocean fares came too late in the season to help the class of settlers we get in Ulster, who when about emigrating do not re-engage after Christmas, if hired men, and when farmers with capital must, of course, have time to make their arrangements.

Callers at the office increased in number after the announcements of the reduced rates, but they were mostly of the class I am instructed by the department not to encourage emigrating to Canada.

Perhaps this is the proper place to state that most of the mechanics who have left Belfast for Canada worked on their fathers' farms up to a few years ago, and have lately gone to Canada with the object of returning to the occupation of their forefathers and that of their own early youth. In my almost daily intercourse with the agricultural population I find that the rise in the standard of living has been most marked amongst the country people, or farming class, and that consequently the profits from farming small areas have most decreased, and in proportion to that decrease there has come to the people a desire to seek homes in the country they hear so much good of, and where they can acquire reasonably large sized farms.

Trade inquiries have not been many, but I can say that in most cases I have been able to attend to them in a manner satisfactory to those interested.

Your obedient servant,

EDWARD O'KELLY.

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No. 7.

REPORT OF J. BRUCE WALKER, CANADIAN GOVERNMENT AGENT AT GLASGOW.

52 ST. ENOCH SQUARE,
GLASGOW, July 1, 1904.The Commissioner of Emigration,
London.

SIR,—I have the honour to submit the report of the Glasgow office for the year ending June 30, 1904.

The report of the office for the financial year ending June 30, 1903, was in every respect a most encouraging one. It showed that during that year, something over 8,000 persons of Scottish nationality had left this country for Canada. This was a record, and, having regard to the excellent work performed to achieve this result, I felt that most extraordinary efforts would require to be put forth to maintain these figures, and, if possible, to increase them.

I am happy to be able to report that the figures for the financial year ending June 30, 1904, just to hand through the board of trade, are of a most gratifying character, and show that we have been able, not only to maintain the high standard of 8,000 sent from Scotland in the preceding year, but to increase that to 12,627 for the financial year just brought to a close.

These satisfactory results have not been achieved without strenuous efforts, and the adoption of every legitimate means of placing before the people of Scotland the claims of Canada.

In estimating the causes that have led to this very gratifying increase, an increase which, in relation to the aggregate population of the country, will bear a very flattering comparison with any other portion of the United Kingdom, I attribute much to the excellent method of newspaper advertising adopted by the department, to the abundant supply of excellent literature for distribution, and to the various other efforts and agencies utilized to place in the hands of the Scottish people intimate and accurate knowledge of Canadian conditions.

Amongst other valuable adjuncts I ought to mention the East-End Industrial Exhibition, held in the city of Glasgow for five months of last winter and spring. The exhibition was attended by something like three-quarters of a million persons, and the Canadian stand was generally recognized to be one of the principal features of attraction within the inclosure.

The stand was erected under the supervision of Mr. John Edgar, of Ottawa, and remained in his charge during the entire exhibition. In addition to giving ocular demonstration of the fruitful nature of Canadian soil by the means of this exhibit, a large quantity of good literature was placed in the hands of the very class of people whom we were specially desirous of reaching.

During the winter months I undertook myself an extensive list of lecturing engagements, illustrated with limelight and cinematograph views. These lectures, which numbered thirty in all, covered many of the leading market towns, as well as the largest cities, and, from a conservative estimate of the aggregate attendance, I am of opinion I was, through this means, enabled to carry the story of Canada and her wonderful resources to at least 30,000 interested hearers.

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In addition to this, and to a constant stream of personal interviews in my own office, I visited the various sub-agencies in the Scottish district on certain specified and advertised days, and met and conversed at their own homes with large numbers of interested inquirers.

I feel deeply grateful to the deputy minister for the kind assistance and encouragement of his visit to the office and district during last winter, and for the valuable advice and hints he was able to give me on that occasion.

In order to further the work in the country districts of Scotland, Mr. Smart suggested the construction of an exhibition wagon, which should be able to reach those portions of Scotland somewhat remote from the lines of railway travelling, and somewhat inaccessible to the ordinary means of advertisement. Carrying out his wishes, a handsome exhibition wagon, tastefully decorated, and bearing appropriate mottoes, and containing an excellent display of Canadian agricultural products, has been placed in the field, and for some months now has been touring in many parts of Scotland out of the beaten tracks of travel and beyond the lines of railway. Villages that have never heard a Canadian lecture, and know but little of the story of the Dominion, have been placed in close contact with samples of its products, and plentifully supplied with suitable literature. From this agency alone I am anticipating most gratifying results, and, together with other means of advertising our country, expect that the future will continue to result in a further bringing home of the claims of Canada to the Scottish agriculturist.

Our work in Scotland has not been altogether without its drawbacks. The operations of irresponsible agents here, who are sometimes as unscrupulous as they are irresponsible, the newspaper publication of grossly exaggerated reports of Canadian weather, together with the gloomy reports of unsuitable settlers; men, who lacking the instincts of the successful settler, lacking the patience and perseverance of the successful man, and physically unfit for manual labour, have no doubt raised here and there a prejudice against the country. I am proud to say, however, that so far as Scotland is concerned, the percentage of failures and of those who have returned disappointed has been phenomenally small.

The class of emigrants from this country is of the very highest order, and the complaint is frequently made in interested quarters that the best brain and brawn of the land are seeking the shores of Canada. This year the physical, mental and material average of the emigrant to Canada has been unusually high, and amongst the large crowds who weekly assemble at the Glasgow harbours as the ships move off a feeling prevails that the best blood of the land is making its way to the golden west.

The interest in Canada remains excellently well sustained, and I have not the slightest doubt that, with the encouragement of a good harvest this year, and a renewal of our efforts during the coming winter, the future will be equally gratifying, both with regard to the number and quality of the settlers leaving these shores.

During the winter months there is a constant stream of inquirers at this office, and if the agent is to devote a reasonable portion of his time to stimulating and advancing the work in other districts of the country he ought to be provided from November until April, at least, with the services of some one acquainted with the agricultural conditions in Canada, to meet and discuss the situation with inquirers, while he is absent visiting other districts of the country.

Your obedient servant,

J. BRUCE WALKER.

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No. 8.

REPORT OF D. TREAU DE CÆLI, AGENT IN BELGIUM.

ANTWERP, BELGIUM, July 10, 1904.

W. T. R. PRESTON, Esq.,
Commissioner of Emigration,
London.

SIR,—I have the honour to submit to you the annual report of my work for 1903-4.

Returning from a visit to Canada early in July, 1903, I had the pleasure of sending off in the same month a certain number of families, who went to join friends or relations; this kept on through August and part of September.

The opening of a suitable and creditable office, as the agency of the Canadian government in Antwerp, attracted the attention of the public at large, and many have been the trade inquiries received, while information of all kinds was asked and cheerfully given.

Early in December a preparatory advertisement was started, and when, on the occasion of his visit to the continent, the deputy minister ordered a thorough advertisement and a propaganda by pamphlets profusely sent all over the country, a deluge of letters of inquiry came to this office. For the last six months of 1903 they numbered 1,100, they numbered over 6,000 for the first six months of 1904. This large correspondence, together with 870 letters on official, trade and commerce and other matters, necessitated in most cases an answer, which was always promptly given.

The great number of visitors at the office and the heavy correspondence have prevented me giving the same number of meetings as in previous years; notwithstanding this, where lectures became necessary I always made a point to give them; I reserved for these and also for the visits at a distance, to meet future emigrants, the Saturdays, Sundays and Mondays, attending the other days at the office unless important meetings should call me away.

One of the pleasing features of this year's work is the number of families who left with the necessary capital to settle on a farm, although I always advised them to hire out first in order to acquire experience.

As might be expected, the Belgian papers in which our advertisements appear, circulate beyond the boundaries of my district, and I am very frequently asked for information from localities in other countries than Belgium. I am satisfied that the attention which I have given to such correspondence has had good results.

As much as possible I carry on a correspondence with those who are gone to Canada, and as in every case their letters express their satisfaction with their new homes, this helps me to convince others of what they might expect.

Belgium will have a grand universal exhibition in 1905, on the occasion of the 75th anniversary of the independence of the country, and if the government of Canada or the Department of the Interior would see fit to take part at this exhibition, even only with the agricultural products of Canada, it would be a powerful means of propaganda.

I am pleased to state that the press commences to take a certain interest in Canadian immigration, and that it is freely and emphatically stated that Canada is the best place on the globe for the surplus of the Belgian population.

I annex to this report copies of *Revue*s eulogizing Canada as the best and fittest colony for Belgians.

As soon as the official returns of the emigration to Canada have been made up by the Belgian government, I shall forward copy of said statement, which will prove better than anything else, the splendid result of this year's work.

Your obedient servant,

D. TREAU DE CÆLI.

No. 9.

REPORT OF PAUL WIALARD, AGENT IN FRANCE.

PARIS, July 1, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—The first annual report which I have the honour of submitting to the department, covers only a period of ten months, as my nomination to the district of France is dated September 1, 1903, and my work here virtually began with the visit to Europe, in February last of the deputy minister.

Before coming over I was directed by the department to go and visit in detail the different districts open to colonization in the North-west, as well as in the eastern provinces, so that I could furnish better information to intending emigrants. Two months were devoted to that study before I left Canada.

It was impressed upon me by the department that nothing should be done directly or indirectly which might infringe on the French emigration laws.

I am always obliged to show clearly under what conditions an emigrant of the right stamp will succeed in Canada. By so doing, we must necessarily attain the other and most desirable result, of deterring the unfitted from going out, and as people of this last category had been more numerous than those of the other, it was evident that, by following such a course, we were running the risk of a diminution as far as quantity is concerned. But in a matter of such import as emigration, the question of quality comes first, as one single colonist who succeeds, is worth for us a host of dissatisfied emigrants who would sooner or later find their way back to France, and abuse Canada ever after. Therefore, I went on to work, exerting my utmost care and judgment to deter all applicants not belonging to the agricultural class, which is assured of success in our country. To such people the Canadian government is ready to guarantee immediate employment upon landing at wages much higher, generally, than anything they can obtain anywhere in Europe, until they are in a position to avail themselves of the offer of 160 acres of free grant land.

At the time of the deputy minister's visit I travelled with him through different districts including Brittany, part of Normandy and some sections of central France. Everywhere we met with a favourable reception. At Nantes, a most cordial welcome was awaiting us. A banquet was tendered to the representative of the Canadian government at which the Mayor, the President of the Chamber of Commerce of the great western city, and many influential people were present. This visit through France could not but confirm the deputy minister in the opinion he had frequently expressed, that the French peasant was undoubtedly a most desirable element for our country, and therefore that the advantages offered by Canada should be brought prominently to the notice of these people, many of whom find it an almost impossible task to raise their families at home, and whose greatest hope is in emigration.

Under these conditions a series of lectures in the districts where the demand for information about Canada had been most active was considered a likely way to accomplish our object. This course has been followed in more than forty different places. In these lectures and in my personal interviews with people, as well as in my correspondence, I never lost sight of the restrictive orders received from the department. I therefore sincerely believe that our work in France, instead of creating alarm, has been instrumental in developing a totally different feeling inasmuch as our efforts

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had for sole object the promoting of a better knowledge of Canada. As for the results, the course which has been thus followed, was crowned with a success I did not anticipate or hope for. Moreover—and this is the important point—the French emigrants landed in Canada this season, were considered first class. This has been frequently remarked to me by the Dominion immigration agents. Of the numerous emigrants sent this season, many wrote me letters bearing evidence of their satisfaction at being now settled in our country. They met with the kindest reception from the government agents, and through them were able to find immediate employment; those who were desirous of establishing themselves received all necessary help and assistance.

We cannot give a correct estimate of those who left France for Canada until the official returns, taken from the entries at Canadian ports, are published. Many an emigrant, after inquiry at our office, will take his final decision without seeing us again, and purchase his tickets from local maritime agents. The official statistics will show the exact number of emigrants travelling third class, but will not include those travelling first-class, who are, of course, beyond our control, though many of them, properly speaking, are emigrants.

The details of the advertising campaign I should follow were left to my judgment with the understanding that I should exercise a wise and prudent economy. I thought it advisable, principally at first, not to give our offer of information an importance which might attract too much attention. Though my advertising bill did not reach a high figure, I think I have distributed it so that the results will show the definite form we should ultimately adopt. In many cases I have arranged with the newspapers in which I had inserted advertisements that clippings from our pamphlets and articles favourable to the Canadian cause be published gratuitously.

As Canada is better and better known abroad; as the success obtained by previous French emigrants can be offered as an evidence that the promises contained in our emigration literature are based on reliable facts, I can certify that our country will continue to enjoy the good will of the French press. Moreover, many an old prejudice, due to some previous and unhappy experiments in other countries, will disappear when it becomes known as an unquestionable fact that by emigrating to Canada, the French agriculturist, with little or no money, but with courage, energy, and, above all, perseverance, will find there a comfortable and prosperous life.

Our general correspondence thus far, including inquiries about Canada and letters applying for tickets has reached a total of more than 3,000 letters, requiring, of course, an identical number of answers. We have distributed a great quantity of emigration literature, with which the department has kept my office regularly supplied, authorizing, besides, the printing of a pamphlet especially adapted to French needs. This pamphlet has already helped me considerably in my work.

I am very much indebted to the London office for the kindness shown to me in every circumstance.

I need not say I will endeavour to remain worthy of the confidence reposed in me, directing all my efforts towards a continuance of the success I have met so far in the accomplishing of my mission in France.

Your obedient servant,

PAUL WIALARD.

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OPERATIONS IN THE UNITED STATES

No. 1.

REPORT OF W. J. WHITE, INSPECTOR OF AGENCIES IN THE UNITED STATES.

DEPARTMENT OF THE INTERIOR,
OTTAWA, July 2, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—In reviewing the Canadian immigration work done in the United States during the past year, I have to say that the anticipations were fully warranted by the results that have been achieved.

During the year I travelled over a great many districts in the following states : Minnesota, North and South Dakota, Wisconsin, Nebraska, Kansas, Missouri, Illinois, Iowa, Indiana, Ohio, and some portions of Kentucky, Pennsylvania and Montana. I found wherever I went the deepest interest in western Canada. Almost every town and hamlet in all the districts I visited had become advised concerning conditions throughout the territory to which immigration to Canada is invited. The literature sent out by the department, bearing the impress of truthfulness, and never being over-coloured, has been fully endorsed by those who have made western Canada their home, and also by those who have paid but temporary visits.

During the year considerable attention has been paid to the matter of getting information regarding Canada into the schools of the United States, and wherever it was possible to place a geography of Canada or the school map of Canada it was done. In fact the geography issued by the department was so well received by educational institutions that applications for many copies have been made direct to the department by the superintendents of schools, as well as by teachers, who find them of great use in the schools. In this way, there is being given an enlightening education in affairs Canadian.

Our educational work was further carried on by the exhibits placed at the different state fairs, where we were able to secure space, and also at such county fairs as it was possible to exhibit at. This work has been carried on for some years, is highly successful, and should be adopted wherever our agents are working.

Many of the land companies operating throughout the United States, desirous of getting supplies of our literature, when it was found that the land company was a bona fide organization owning lands in Canada and that the literature would be used to good advantage, have been given reasonable quantities of it. In many cases the agents of the government advertised and held meetings, which were held in the territory in which they were operating. These meetings were largely attended, and beneficial results were nearly always derived from them.

The advertising done by the department was somewhat on the same lines as that which has been done for some years, viz., advertising in the principal farm papers throughout the states in which we are operating; the local or county paper having a home circulation; and also using the co-operative lists of newspapers circulating throughout the western states and a portion of the eastern states.

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This year advertising was carried on in more eastern papers than during any previous season. Amongst the eastern papers use was made of a large number of the religious class, which have a large circulation, and although the results of the advertising in this class of papers has not been as satisfactory as it was expected it would be, the general result, judging from the increased correspondence this year over last in many of the offices, confirms me in the opinion that the methods we have been adopting, and which were established some few years ago, of advertising in the manner above outlined, are the very best means we have of bringing to the notice of the people the resources of our country. This advertising generally commences about November 1 and runs until May. I do not think that advertising in the summer months brings about much results, but the advertising carried on during the winter months certainly is quite successful. The advertisement of one year may not induce a man to move, neither may that of the second year, but when he sees the same advertisement inserted in the same paper the third year he becomes impressed with the fact that the advertiser has an article that is useful, staple and has merit. He will then begin to inquire, and if satisfied will change his location and go to Canada.

In addition to the regular advertising, the attention of the clergymen of the United States was directed to the moral and other advantages possessed by Canada in a circular issued pretty generally to clergymen, and these were sent out in large numbers. The response to these circulars was quite satisfactory.

During the year 1902-3 a well-equipped organization manned by some of the wealthiest land corporations of the United States gave considerable opposition to our work, and such action as we thought best to meet special or particular cases was taken. While this opposition diverted the attention of people our agents had interested to some extent, it was but temporary. We relied upon the greater inducements offered by Canada to eventually offset this movement, and they are doing it. The organization I specially refer to was one having a publicity bureau in St. Louis. Its existence was only for a few months, however. In other ways also there has been more or less opposition to our work, which would have been more serious but for the friendliness of the newspapers, which we have been able to hold, many of them refusing to open their columns to the attacks that were being made in an organized way.

Some of the railroads interested in settling the southern and western states, previous to the establishment of the propaganda of the Canadian government, did very little advertising. As soon, however, as they saw that there was a large movement to the north and into Canada they started a vigorous campaign of advertising. One road, I am credibly informed, spent some \$300,000 in the newspapers of the north, central and middle western states for the purpose of diverting the Canadian movement. Not only did they do this, but they gave to those wishing to look over lands along their line an exceedingly low rate. Co-operating with these railroads in its efforts to keep people from moving to Canada there was established an association in St. Paul, under the name of the American Immigration Association, with head-quarters at St. Paul. This comprised representatives from the states of Minnesota, Iowa, Illinois, North and South Dakota. After three or four months' operations it ceased to exist. There was also organized another association—the Minnesota Immigration Association, which has not done any very active work as yet.

During the month of August of last year I took charge of a number of editors of the British papers, making a tour of western Canada. The papers represented were :

London, *Daily Graphic*.

London, *Express*.

London, *Morning Post*.

London, *Reynolds' Newspaper*.

Birmingham, *Midland Express*.

Aberdeen, *Free Press*.

Glasgow, *Evening News*.

Belfast, *Daily Telegraph*.

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Sheffield, *The Independent*.

Newcastle-on-Tyne, *Daily Chronicle*.

Bristol, *Daily Mercury*.

The gentlemen representing these papers were of the very best type of newspaper men; men who were anxious to secure all information possible and who had the ability to write clearly, concisely and convincingly. Their letters in the various newspapers represented by them occupied many columns, and were of such a character that the deputy minister was able to use them to excellent advantage when in the old country last winter. The cost of this was not very great and the benefits derived were such as will last for a long time.

I spent some time during this past winter in arranging a tour of the Indiana Press Association, and hoped to take it into Canada this month, but it has been decided, on account of the associations of many of the newspaper editors with either one or other of the political parties, that it would be unwise to attempt the excursion with the limited number who could just now take the time necessary to make the trip. I hope that more success will meet the efforts to the same end this coming winter.

The Louisiana Purchase Exposition at St. Louis was a medium that advantage was taken of to give information concerning Canada, and as soon as the exhibition was opened and the Agricultural Department had its exhibit in shape, I was prepared with men and literature to look after the interests of the immigration branch. What the results may be it is, of course, at the present time difficult to say. I feel, though, that this exhibit being in a splendid agricultural district and likely to be attended by agriculturists of every class, much good work will be accomplished.

Some changes in the staff of agents have been made during the past year. Mr. J. N. Grieve, formerly of Sault Ste. Marie, has been transferred to Spokane, Wash. This was done for the reason that applications received from the coast states were so numerous that it was thought better to place another man in that district to look after this important work. Mr. C. A. Laurier, of Marquette, was transferred to the Soo to replace Mr. Grieve. It was thought advisable during the past winter that the state of Wisconsin should be pretty thoroughly looked after from Milwaukee, and Mr. MacLachlan, agent at Wausau, was temporarily transferred to Watertown, South Dakota, to take the place of Mr. W. H. Rogers, who was sent temporarily to Indiana. Mr. J. C. Duncan, of the Indianapolis, Indiana office, was transferred to the office opened at the Louisiana Purchase Exposition, where he will doubtless remain until the close of the exhibition. Mr. G. A. Hall was appointed in North Dakota, with headquarters at Minot, for the purpose of looking after the western district of North Dakota. His appointment was for six months. I cannot at the present time state whether it would be advisable to continue it or not.

In addition to the work of the regular agents, a large number of sub-agents have been acting, they being paid so much per capita. The number engaged this year is considerably less than that of last year.

It becomes necessary for me to report that the conditions this spring were such as would have seriously impeded our work, had we not possessed the wonderful inducements offered by our splendid west. Without going into a lengthy detail I will enumerate some of the reasons:

(1.) The determination of bankers throughout Iowa and Illinois not to loan money to any who intended investing the same in lands in western Canada.

(2.) Short crop throughout several of the districts in which our agents have been operating, which meant that the farmer being unable to take to Canada as much as he desired had decided not to move until he could do so. Fortunately throughout some of these districts the prospects for a good crop this year are good, and we will reap largely in getting settlers.

(3.) Floods and washouts on the Soo line, between St. Paul and Portal; on the Canadian Pacific Railway between Portal and Moose Jaw and also between Regina and Saskatoon. These washouts so affected the railroads that they were unable to carry

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either passengers or freight for all the month of April and a portion of the month of May, thus making it exceedingly difficult to move people during these very important months.

(4.) The opening up of several Indian reservations by the United States government, and also the opening up of a large tract of land in Nebraska made vacant by the Kincaid Bill.

All these were factors in diverting the movement of people. However, despite all these very serious drawbacks the reports of the agents show splendid results during the fiscal year. The correspondence at the various offices indicates an exceedingly healthy growing feeling in favour of Canada, and during the next year I anticipate fully as large a movement of people as during any past season. Should the crop in western Canada of this year prove as favourable as it is hoped, I would suggest that as soon as the results are known the information be circulated as widely as can be done throughout the United States.

Our agents have been pushing the work in their several districts with the greatest vigour, and all are working with a loyalty and devotion which are certain to be followed by satisfactory results.

Your obedient servant,

W. J. WHITE.

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No. 2.

REPORT OF M. V. McINNES.

CANADIAN GOVERNMENT AGENCY,
ROOM 6, AVENUE THEATRE,
DETROIT, MICHIGAN, July 1, 1904.

W. D. SCOTT, Esquire,
Superintendent of Immigration.

SIR,—I beg to submit my report for the year ending June 30, 1904.

The outcome for the year 1903-1904, so far as the Detroit office is concerned, has been to my mind eminently satisfactory in every respect, and I believe the same remark will apply to all other immigration agencies in the United States, and although there has been a general falling off from United States immigration, by a few thousand, during this year as compared with last, it is no reason for discouragement when we analyze the causes. The presidential year is one reason, the wet, late season is another, and the opening up of over three million acres of homestead land in the north-western states is a third and the most potent one. Nevertheless the fact remains that more American farmers and other citizens have acquired a knowledge of our famous heritage beyond the Ontario boundary, and more general interest in western Canada has been awakened throughout the United States during the past twelve months than ever before in the history of our work during any one year.

Even the casual observer can perceive that the feeling of the nations concerning Canada has changed remarkably and most favourably during the last year, and nothing has brought this about in a more marked degree than the wonderful immigration from the United States. And let it be remembered that this immigration is of a very superior type, and far surpasses, not only in activity and intelligence, but in the possession of means, any that comes to America from the old world outside of the British islands.

It is, moreover, very satisfactory to be in a position to state that the wheat fields of the United States no longer attract Canadian farmers, when they see the bright husbandmen of the United States migrating to our western territories in thousands.

A variety of literature of the highest order, admirably formulated, attractively prepared and displaying to advantage the printer's art, has been carefully distributed in hundreds of agricultural centres where it was well received, and in some places with much enthusiasm. This aided to a very large extent in bringing about an excellent result, and one which, all things considered, surely exceeded my expectations.

To give some idea of what has been done in Michigan and other territory controlled by me, my records show that certificates for low rate fares into western Canada have been issued to more than 2,900 intending settlers, an increase over the previous year of more than 400, while upwards of 1,700 prospectors, including mechanics and farm labourers, have found their way into our western domain, and into New Ontario and Quebec, through the influence and active direction of the Detroit office, some by way of Canadian Pacific Railway and other excursions and others over American lines of railroad, and who did not require to be furnished with certificates.

Those who went to the west by means of my certificates took with them stock, farming implements and other effects, including cash, to a value in excess of \$1,200,000, and these earnest settlers are now engaged in prospecting that husbandry which is

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surely calculated to improve their condition and place them in the coveted ranks of independent men.

Our spring excursions from Detroit and the 'Soo' to the west were well patronized by an excellent class of settlers, and gave evidence of the wisdom of their inauguration.

Prominent among those who went out to our western lands in search of homes were a large number of German-Americans. They are all sturdy and enterprising fellows, speak the English language well, and will make admirable settlers.

With the Hungarians located in lower Michigan we are making good progress. A colony of twenty-five families from the districts of Owosso and Gaines, Michigan, are preparing to leave for Assiniboia with all their belongings during next August. Their intention is to take homesteads together and found a settlement, but as most of them have a limited knowledge of English they are not averse to locating separately and mixing with other people. They are quiet and frugal, know well how to till the land, and are entitled to and will surely receive a kindly welcome in the west.

From the large district of Vassar, in Tuscola county, Michigan, a colony of fine farmers for Alberta has been formed, under the astute leadership of Mr. Henry Haight, a gentleman farmer of wide agricultural knowledge and matured judgment. He and his associates have already located thirty-two homesteads and commenced work. Very many more will soon be taken up by those who are to follow, and by next spring a new and bright settlement will be added to the farming communities of Alberta. This concourse of farmers are of the best stock of Michigan, some of them ex-Canadians, but all well-to-do, pushing and intelligent men.

And from Standish, Arenac county, Michigan, another company of clear-headed husbandmen have sent pioneers to Alberta. They, too, are under the leadership of a Mr. Haight—Robert R.—a farmer of large experience and distinguished executive ability. Fourteen homesteads have already been secured, another batch will soon be added, and the coming spring will also see this promising little colony on the road to permanent settlement. No better citizens for Canada can be had, and I am sure their example will stimulate many of the good farmers of Arenac county to join them in the culture of Alberta's generous soil.

It is a pleasure to note also that a number of French settlers from Saginaw county, Michigan, of much activity and agricultural knowledge, have made entry for homesteads in Saskatchewan, with every chance of permanent prosperity. Many more will shortly follow and, by continuous effort on our part, I am satisfied that hundreds of these industrious people will, in the near future, be possessors of happy western homes.

Our exhibitions at the state and county fairs were as successful in the year under review as they have been in the past.

The state fair of 1903 was held at Pontiac, Michigan, in September, as it was in the previous year. I was allotted the same space that I had then, and made a full display of samples of the grains, grasses and other products of our western lands. I was cordially welcomed and received the most courteous treatment from the president and all the members of the executive board. I beg thus prominently to return them my sincere thanks, with the assurance that their politeness is much appreciated by our Minister of the Interior.

The farmers of the state present at the fair were loud in their praises of our exhibits. Their admiration was unbounded. The fine show of wheat particularly attracted their attention, and a great number expressed their determination to visit the country that produced such wonderful grain, and they have fulfilled their promise.

I attended eleven county fairs, held at widely separated points throughout the state and put up an exhibit at each place. The same interest that the farmers manifested at the state fair was shown at the county gatherings, and my efforts were rewarded with unvarying success.

I beg leave to suggest that during next year similar exhibits of our western products be shown by me in the states of New York, Pennsylvania and Kentucky. For-

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mer exhibitions have always been productive of so much good that I feel certain the most favourable results will follow.

Allow me, in conclusion, to remark that the tide of Canadian immigration towards the setting sun still swells and flows along in gathering volume. We may safely predict that five years hence there will be found in the great Canadian west an army of farmers who have been marshalled thither by the government agents in the United States—strong, thriving, healthy and contented, developing the grand resources of the country, and alive to the value of the liberty and unrivalled institutions of our Dominion.

Your obedient servant,

M. V. McINNES.

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No. 3.

REPORT OF C. A. LAURIER.

SAULT STE. MARIE, MICH., June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg to submit my report for the year ending June 30, 1904. I am pleased to say that the year has been a fairly busy one. There have been 421 settlers' certificates issued from this office, divided as thus, viz. :

| | |
|--|-----|
| Upper Peninsula of Michigan..... | 285 |
| Lower " "..... | 136 |

 421

representing a total of 724 persons. These were all good and desirable immigrants, some of them being possessed of considerable means. They took eleven car-loads of stock and effects and nearly \$150,000 in cash. I have received on different occasions letters from several of them expressing their great satisfaction in having settled in that grand fertile country, and urging their friends to hasten to go and join them. Taking into consideration the short time immigration work has been carried on in the northern peninsula of Michigan, I feel gratified at the result attained this last year, as the statement above shows there were more certificates issued to people from the north than from the south of Michigan, and I am inclined to believe that this movement will continue in the future. During the fall of 1903, I attended the county fairs at Marquette, Houghton and Sault Ste. Marie, Mich. I placed exhibits in each one of them that attracted a great deal of attention and comment, the spectators stating that they had never seen a display of such magnificent grains and grasses. It is my intention to follow the same course this coming fall again, because I find it is about the best and most direct method of advertising.

I have received 1,218 letters of inquiry during the year. I made it a practice to attend to all correspondence promptly, to answer all questions that were asked in each letter, and to send literature at the same time. I am receiving several letters of inquiry every day and the indications are that immigration to western Canada will be larger from throughout my territory this coming year than it has been during the one just ended.

Your obedient servant,

C. A. LAURIER.

No. 4.

REPORT OF E. T. HOLMES.

CANADIAN GOVERNMENT OFFICE,

SAINT PAUL, MINNESOTA, June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg to submit my report for the year 1903-4, just closed, which may be considered one of the most successful years we have had in this territory, which consists of Minnesota and part of Iowa.

It has been my custom to visit as many different points in my territory, and as often as possible; driving into the country and calling on those with whom we have had correspondence, and all others I learn of being interested in western Canada.

During the winter months I hold public meetings in different parts of the territory, which are almost invariably well attended; some come out of curiosity, but before they leave the meeting, become so interested that they decide to go and inspect the country the following summer. By holding these meetings I am enabled to talk to a much greater number of people at smaller expense than otherwise.

During the fall we place an exhibit of grains, grasses, vegetables, &c., at the state and a number of county fairs, which attracts marked attention and comment, there being no other display of its kind to equal it. As a matter of fact the Canadian exhibit is considered a special feature of attraction at some of the county fairs. A display of this nature is, I consider, one of the best means of convincing the American farmer that western Canada cannot be surpassed as a farming country.

The settlers we have been sending to Canada are by no means paupers, or ever likely to be, as the average farmer takes in with him a car load of farm stock and implements and from \$1,500 up in cash; one of them took with him over \$38,000 in cash, stock and implements. It is not an uncommon occurrence to send a settler with from \$5,000 to \$7,000 in cash.

One of the most prominent senators in this state has nineteen sons, brothers and nephews at present farming in western Canada, all having gone from this state, and he himself owns a section there and intends farming the same next year. We had one settler this year who is quite a novelty, being 76 years of age, and went to Canada to make a home for his mother, who is 104.

There have been several serious drawbacks to immigration in this district this year. During March and April it was almost impossible to get freight cars. There are several instances where farmers had moved their families and effects into town, expecting to ship in a few days, and were compelled to wait four or five weeks, which proved to be very expensive. At one place in the southern part of this state, several families, after having waited in town over 30 days for cars, moved back into the country and rented farms for another season, but will move next year if at all possible. The movement was also greatly deterred for a long time by floods on this side of the line.

A number of American immigration associations have been started this year, with headquarters at St. Paul; their main object being to stop the movement to western Canada, but with continued liberal advertising and energetic efforts of the agents, there can be no doubt of immigration to western Canada increasing.

Your obedient servant,

E. T. HOLMES.

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No. 5.

REPORT OF C. J. BROUGHTON.

430 QUINCY BUILDING,

CHICAGO, ILLINOIS, July 1, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—From July 1, 1903, to June 30, 1904, there have left through this office one thousand, one hundred and forty immigrants, with ninety-one cars of effects. These figures do not include any people sent by land companies. It is estimated that the latter people sent probably one hundred and fifty settlers from this state.

The majority of these settlers were pretty well to do. In many instances the head of a family had over \$5,000, in one case four families had \$225,000; in another one man had \$250,000.

Taking into consideration the conditions that existed this spring, more people could hardly have been looked for, as you are aware that for three weeks we had no train service via Portal, and while the people were all ready to leave and load their freight, we had to hold them back. Again there was a great scarcity of cars. It was a very hard matter to get the railroad companies to supply cars at the time when we absolutely needed them. Again the newspaper reports during January and February, about the storms in Canada, did considerable damage, and the opening of the three reservations by the United States government deterred a great many people from going who were originally going to western Canada; however, this is an increase over last year.

During the year this office received 5,654 letters. There were 11,662 pieces of mail sent out, and 4,996 people called at the office, there also has been a great deal of literature given out personally.

We again had an exhibit at Springfield, in the months of September and October, which Mr. C. W. Speers assisted at. As usual, our exhibit was the attraction of the Dome Building, and thousands of people saw it, and while it may not immediately be the means of inducing people to go to our country, it helps to make them think, and when they write in for further information and I personally call on them it is very much easier to induce them to leave this state for Canada.

The advertising done by Mr. W. J. White has been a great help to us.

The immigrants passing through Chicago on their way to Canada were all personally met, and in many cases taken to St. Paul and placed on their respective trains there. This is almost an absolute necessity, as in many instances, women and children would be alone, and, of course, after they were on the train from St. Paul there would be no further trouble.

A large number of settlers have also left this state for New Ontario, many of whom go via lake to the Soo, and it is impossible to keep check on them, but I should say that there were at least 200. This would make, taking the figures which we actually have of business through this office, and sub-agents, and estimated at a low figure for the land companies, a total of 1,490 people.

I anticipate during the coming fiscal year to have from 50 to 65 per cent more settlers, and if we have good crops, in all probability it will reach an increase of 100 per cent.

Your obedient servant,

C. J. BROUGHTON.

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No. 6.

REPORT OF BENJAMIN DAVIES.

GREAT FALLS, MONTANA, U.S.A., July 6, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I take pleasure in submitting my report for the year 1903-4.

Taking everything into consideration, I think you will find quite as many actual settlers have gone into western Canada from my territory as we anticipated.

I have had the usual opposition of the United States railroad companies and that of land companies and real estate men constantly throwing obstacles in the way. The excessive freight rates have in a measure retarded emigration, but we overcame this somewhat by advising all those who had time to drive overland to Lethbridge, Alberta. Quite a large number have taken this advice and continue doing so, thus making a saving of \$89.60 per car-load, or about \$9 per day for a ten days' drive with stock.

I find from the records in this office that 1,687 settlers have been sent from this agency, their total value in effects and cash being \$2,514,260.

There have been large numbers of cattle and horses driven overland, of which I could not obtain sufficient information to warrant a report, though I am convinced from 2,500 to 3,000 head would be a fair estimate; this does not include stock shipped to Canada by large cattlemen, as some of them have sent across the boundary that number each.

The number of letters received at this agency during the year was 3,270; number of letters sent, 11,973; number of visitors or interviewers, 1,786, all of whom received information and atlases of western Canada. Thousands of names and addresses were received on blank forms sent to inquirers for information. These were forwarded to you, and atlases and other publications presumably were sent to these addresses by the department.

Since May of this year 86 car loads of settlers' effects and 10 head of stock and one man in charge of each car left or passed through Grand Falls bound for the Canadian west.

I exhibited western Canada grains on the straw, and threshed, also wild and cultivated grasses, vegetables, cheese, tomatoes, honey, butter and other products at the Cascade County Fair, which was held here in September and October, 1903; also at the state fair at Helena and at Kalispell, Montana. The usual result of this advertising followed in a marked degree. Thousands of atlases and other publications describing our great country were distributed to visitors at these exhibits.

I have received numbers of most flattering letters from parties who were induced to visit Canada and inspect the country for themselves and others, and who homesteaded and purchased lands there. Some of these reports were forwarded to you. Numbers who have homesteaded and returned for their effects have called on me and given an account of the country and the manner they were received by the Dominion land officials in Canada; these reports have been most pleasing to me, for they have all been very flattering to the government officials of western Canada; not one case of complaint. This is as it should be, as it makes a wonderfully good impression on the intending settler. The courtesy of the Mounted Police has been spoken of in nearly every instance, especially by those who drove through.

About 90 per cent of my people have located in Alberta, attracted there by the warm and mild winters, where stock feed out all the year round.

The prospects of a good healthy emigration from these western and coast states are favourable, the indications point to an increased inflow this year. Hoping my expectations along these lines will be fulfilled,

Your obedient servant,

BENJAMIN DAVIES.

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No. 7.

REPORT OF JAMES N. GRIEVE.

SPOKANE, WASH., July 14, 1904.

W. D. SCOTT, Esq.,
Superintendent of Immigration.

SIR,—I beg to submit my annual report for the year ending June 30, 1904.

Settlers sent in since last report:—

| | |
|----------------------------|-------|
| 1903. | |
| July.. . . . | 70 |
| August.. . . . | — |
| September.. . . . | 69 |
| October.. . . . | 120 |
| November.. . . . | 78 |
| December.. . . . | 40 |
| 1904. | |
| January.. . . . | 74 |
| February.. . . . | 84 |
| March.. . . . | 254 |
| April.. . . . | 378 |
| May.. . . . | 330 |
| June.. . . . | 317 |
| Sent by sub-agents.. . . . | 203 |
| Total.. . . . | 2,017 |
| Settlers' effects— | |
| Car-loads.. . . . | 65 |

not including 125,000 pounds in less than car-loads.

It is satisfactory to note that the movement towards the Canadian North-west has increased very materially.

Early in the month of August last I received notice of being transferred from Sault Ste. Marie, Mich. I at once made preparation for the change, and by the first of September, after taking a flying trip through the province of Manitoba and the North-west Territories, studying the conditions during the harvest season, in order to inaugurate a successful campaign in the new field to which I was assigned, I began my new duties, with headquarters at Spokane, Wash.

I rented very suitable office quarters in the basement of the Post Office building, and during the past ten months my office has been visited by from fifteen to twenty-five visitors almost every day, not less than five thousand people having called since my coming here.

In addition to this, I exhibited at the state fair, which was held in Spokane from October 5 to 12, inclusive. The fair was quite a success, although the weather during some three or four of the principal days was very much against it, being cold and wet. I had a very nice space in the main building, and, while my exhibit was small, having to be shipped to me in a hurry by express, yet it attracted a great deal of attention, and was considered the finest of the kind ever shown in the state. I was fortunate in having a gentleman assisting me, who, while being an American citizen—a resident

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of the state of Oregon,—had just returned from spending a summer in southern Alberta, and who was loud in his praise of the Canadian North-west, and had shown his faith in that country by taking up a homestead and buying several pieces of railroad land. At the fair I succeeded in circulating some 12,000 pamphlets, which would enter homes in almost all parts of the states of Washington, Oregon and the western part of Idaho. As stated in some of my former reports, I consider this one of the most effective, as well as the cheapest, ways of advertising, as the people are brought face to face with samples of what the great North-west produces. For the coming season I am already making arrangements to exhibit on a much more extensive scale, and with that object in view am corresponding with the officials of the Oregon State Fair at Salem, and Idaho at Boise, and if suitable space can be secured I shall exhibit at the three leading fairs of the west.

Another system of advertising that I have adopted since coming here has been followed by excellent results; that is, running small liners in the advertising columns, under the heading 'Farms for sale,' in a few of the leading weeklies, which circulate very widely among the agricultural classes. This has brought me in a great deal of correspondence. During the spring months I received upon an average about thirty letters of inquiry every day, ninety per cent of which were attributable to this system of advertising.

In the months of April, May and June I advertised a series of homeseekers' excursions, for one day of each week. Over 600 people responded to my invitation to visit the North-west in this way, and it is my intention to again advertise a series of fall excursions, commencing about the 15th of August, so as to enable homeseekers and investors to visit that country in the harvesting and threshing season.

I have, up to the present, established only one sub-agency in the west. About four weeks ago, I appointed George May, an ex-Canadian, formerly from Prince Edward Island, as sub-agent with headquarters at Seattle, and he, during the first three weeks, issued settlers' certificates to representatives of fifteen families. He also reports many inquiries. Sub-agents at Los Angeles, Cal., and Tacoma, Wash., both report doing good business, and future prospects very bright. I intend shortly to establish a sub-agency at Portland, Ore., which, with those mentioned, I think will be able to fully cope with the work west of the mountains. I may add, in this respect, that I am receiving many inquiries from California, and it may be necessary in the near future to pay some attention to organizing that part of the west.

In my opinion, this is one of the finest fields in the United States for the promotion of immigration work. The trend for many years has been westward until all the available agricultural lands, either government or railroad, have been taken up, and still the people are coming and, in many cases, bringing their all with them. The different railway companies every season offer special inducements, in the way of homeseekers' excursions, and in this way the population of the west is temporarily increased by many thousands. After weeks of fruitless search in the arid districts of this and the adjoining states of Oregon and Idaho, it is an easy matter to induce many of them to pay a visit of inspection to western Canada.

The only serious obstacle in the way of prosecuting the work in this western country is the exorbitant freight rates. It would seem as if the different railway companies had organized and framed a freight tariff which is almost prohibitory. For instance: A mixed car of settlers' goods, shipped from Pasco, Wash., to Nelson, B.C., a distance of 354 miles, costs \$168, or about 50 cents per mile. In order to overcome this difficulty, I, in every case where at all possible, advise driving to the boundary line, and shipping all the way by Canadian Pacific Railway. This season so far, at least twenty car-loads of stock and effects have gone through in this way. I have good reason to believe that by the spring of 1905 I will be able to get better freight rates, as the freight agents of some of the railway companies have expressed a desire to prepare a more reasonable schedule, that will secure for their respective roads the business, and thus put an end to the prairie schooner.

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In conclusion, I have every reason to believe that the fiscal year now being entered upon will see a much larger immigration from the west than the year just closed.

All of which is respectfully submitted.

Your obedient servant,

JAMES N. GRIEVE.

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No. 8.

REPORT OF H. M. WILLIAMS.

No. 20 LAW BUILDING,

TOLEDO, OHIO, June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg leave to submit my report for the fiscal year ending this date.

In the outset, I may remark that it has been said by those having immigration experience, that the people of Ohio would be difficult to interest, as they were so far distant from Manitoba and the Territories, and believed the winter months to be much more severe than in their own state, besides, generally speaking, they had not been in the habit of moving from the land of their birth, as many people in the western states had.

Therefore, a great amount of hard canvassing has been necessary to produce any movement to signify, but, nevertheless, I have succeeded in sending during this last fiscal year four hundred and fifty, as compared with one hundred and seventy-two the preceding year, and seventeen for the year before, which was my first in the service, besides having sent about twenty-five cars of settlers' effects. My correspondence has greatly increased, as has the interest in general, and indications are that the number of emigrants will be greatly increased during this next fiscal year. I also consider the class of settlers to be of a superior quality, many of whom are selling their land here at from \$75 to \$100 per acre and going to western Canada with plenty of means as well as agricultural experience. And as near as I can learn, they are all first-class law-abiding citizens here, and I believe they will make the same in Canada.

Then I attended some seventeen fairs last fall, and displayed the products of our country, beginning with the state fair at Columbus, where from ten to fifty thousand people were on the grounds each day for a week, a large number of whom witnessed our exhibit, which was in a prominent place in the agricultural building, and was much appreciated. Thousands of Canadian atlases and other pamphlets were handed out. I could not wish to be better treated by any president and board of directors than I have been at our exhibits here in Ohio. Only in one instance has a fee been charged for space. This general liberality and uniform courtesy demonstrate to me the kindly feeling existing in the people of Ohio towards my native land, Canada, on the part of the most respectable and influential class of citizens.

In conclusion, will say that Ohio has a very large population of good, thrifty people, but many want cheaper lands for farms for their sons. With high lands and high taxes here, as compared with free and cheap lands and light taxation in western Canada, added to the superior quality of our lands, and our record for growing wheat and other grains, hay grass, vegetables and small fruits, and our good laws and general good citizenship, we ought in time to accomplish much for Canada in the state of Ohio.

Your obedient servant,

H. M. WILLIAMS.

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No. 9.

REPORT OF W. V. BENNETT.

801-2-3 NEW YORK LIFE BUILDING,
OMAHA, NEBRASKA, June 30, 1904.

W. D. SCOTT, Esq.,
Superintendent of Immigration,
Ottawa.

SIR,—In making my report for the fiscal year ending June 30, 1904, you will find that we had from this territory as bona fide settlers to Canada, 2,369 people, 226 cars of settlers' effects, and the value of effects and cash taken with these amounted to \$2,968,580.

The first six months of this year were very dull on account of the backward spring both here and in Canada. Owing to the high waters in April and May we could not move the people for a period of fifteen to twenty days on account of there being no trains over the northern lines.

The prospect for the balance of the year 1904 is very bright, and we expect to move as many as in the whole of the year just ending.

Your obedient servant,
W. V. BENNETT.

No. 10.

REPORT OF CHARLES PILLING.

GRAND FORKS, NORTH DAKOTA, June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR—I have the honour to report that the movement of settlers from this state into western Canada for the year ending June 30, 1904, shows a gratifying increase over the preceding year, the number of persons to whom certificates were issued being 660 in excess of those granted in 1903. It is also worthy of note that the number of cars of settlers' effects shipped from this state of which I have record is 735. This, of course, does not comprise the whole of such shipments, as many of the settlers travelling in their cars do not find it necessary to apply for certificates to present to the customs officer at the boundary line.

During the year I attended all the fairs held at the various points through the state, the opening of the Red Lake Indian Reservation at Crookston in November, 1903, and Thief River Falls in June of the present year, and had an exhibit at the Grand Forks exposition which attracted the usual attention. I have also mailed circulars to every farmer in eleven counties in the district of which I have charge, and intend to gradually cover the whole territory, as I find that this mode of communicating directly with the farmers is productive of very good results.

Your obedient servant,

CHARLES PILLING.

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No. 11.

REPORT OF J. C. DUNCAN.

LOUISIANA PURCHASE EXPOSITION,

ST. LOUIS, June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my report for the fiscal year just ended.

While the number of actual settlers who have gone from my territory is not as large as I would wish, yet they show a substantial increase over the previous year, and the prospects for the coming year are very bright.

I had the valuable assistance of Mr. Rogers, who came to Indianapolis in February, and he has covered nearly the entire state since that time. His report was very satisfactory.

Acting under instructions from Mr. White, Inspector of United States Agencies, I came to the World's Fair at St. Louis, to assist in the work of immigration here, where our exhibits are attracting a great deal of attention and are pronounced to be the best, in their respective classes, and I am confident will result in a largely increased immigration from Missouri and neighbouring states.

Your obedient servant,

J. C. DUNCAN.

No. 12.

REPORT OF W. H. ROGERS.

INDIANAPOLIS, IND., July 4, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my report for the year ending June 30, 1904.

During the first seven months of this fiscal year I continued my work in South Dakota, along much the same lines as have been outlined in my previous reports. And notwithstanding the fact that every influence was exerted and every effort put forth to check the tide of emigration, or turn it in other directions, yet the results were quite encouraging and satisfactory. Were it not for the unavoidable delay in harvesting and threshing operations, caused by protracted rains, the number of actual settlers would have shown a marked increase over the same period of the previous year. However, though many were thus prevented from moving last fall to their new homes, they did so at the earliest possible date this spring.

At the request of the department I came to Indiana in February of this year. It is a large state, with a population of over 2,500,000—more than six times the population of South Dakota. I found certain conditions which at the outset seemed to preclude anything like an extensive movement towards western Canada in the near future, but during the last few months I have visited many portions of the state, and have talked with and to quite a number of people. The longer I remain here, the more I come in contact with the people, the more fully am I convinced that if the work is properly followed up this state will before long do her share towards swelling the tide of emigration in the direction of western Canada.

Your obedient servant,

W. H. ROGERS.

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No. 13.

REPORT OF T. O. CURRIE.

MILWAUKEE, Wis., August 22, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg to submit my report for the year ending June 30, 1904.

Notwithstanding all adverse influences, we have been able to send, directly from this office, 541 persons and 61 carloads of freight, and these people have all gone well equipped financially, with the exception of two, and they are quite able to take care of themselves, one family connection alone bringing over \$100,000. In addition to these, my local agents outside of this city have sent 131, besides 32 reported to me as going through the St. Paul office in one month. You will note that I make no reference to the work done by Mr. MacLachlan.

With regard to the fairs which we attended last fall, the work done there has already been reported to you. During the winter and spring we found there was not a section where we exhibited but our exhibit had a telling effect, and was a great aid in securing settlers. Prospects for the coming year look equally as bright as any in the past, and with unremitting energy and faithful work we hope for even more successful results than in the past.

In passing, the fact should not be overlooked that one of the serious impediments to the work the past year was the floods in the North-west, just at the time when the movement of settlers should have been the most heavy and gratifying, resulting in the impossibility of their getting through without most expensive delays, very likely to result in total lack of ability to secure any crops this year, because of lateness of arrival. This one drawback cost us the loss of over 100 settlers, who had made all arrangements to go, but were compelled to delay, and nearly all of them rented farms in this state for this year. Very many of them will undoubtedly go the coming year, but some may be lost to us.

Hoping for satisfactory and gratifying results from earnest efforts in the future,

I am, sir,

Your obedient servant,

T. O. CURRIE.

No. 14.

REPORT OF J. M. MacLACHLAN.

WATERTOWN, SOUTH DAKOTA, August 31, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my report for the year ending June 30, 1904.

During last fall I attended six of the county fairs held in the state of Wisconsin. These fairs were largely attended, and afforded an opportunity to many thousands of people to see the products of the Canadian North-west. At each of these fairs I distributed a large quantity of literature, from which, no doubt, fruitful results followed.

After returning to my headquarters, at Wausau, Wisconsin, early in October, I continued my work there until January, 1904, when, acting under instructions received from the department, I came to Watertown, S.D., to succeed Mr. W. H. Rogers.

Owing to the very late season in this state last spring, a large number were prevented from removing to take possession of their homesteads within the time required, and in many cases extensions were applied for, and, when good reasons were shown, the department granted them. These favours were appreciated by the intending settlers, and, in my opinion, were the means of giving us a good class of people who otherwise would probably have remained here.

While the emigration from this state has not been as great this season as last, it has not fallen off to any great extent, and this fall I anticipate that a large number of land seekers will visit western Canada. The opening of the Rosebud reservation in this state during the month of July was, in a large measure, one of the chief causes why the number going to the Canadian North-west was not as large this year. Fully 115,000 registered at this opening, when but 2,640 could get claims, that being the number available. It proved, however, a great advertisement for the state of South Dakota, as it was the means of attracting people from all states in the union.

Judging from my present correspondence, and the favourable reports from the North-west Territories regarding this year's crops, I am quite confident that there will be an increase from this on in the number of people emigrating this fall and next spring. I have completed arrangements to make an exhibit at the Interstate fair at Sioux City, Iowa, opening September 5, also at the state fair at Yankton, S.D., and several county fairs.

Your obedient servant,

J. M. MacLACHLAN,

Canadian Government Agent.

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No. 15.

REPORT OF J. S. CRAWFORD.

KANSAS CITY, Mo., June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg to submit report on immigration work for our country in the states of Kansas and Missouri and tributary territory to Kansas City by railway, for the year ending June 30, 1904.

During this year I have held meetings at many of the larger places in my territory and thus been able to distribute literature extensively among interested people; applications for literature by letter continue to show a largely increased interest in our country.

I have sent over 1,600 settlers, and about 125 car-loads of settlers' effects to our western provinces during the year; also the usual number of delegations. To this can be added a large number who go unreported, many of them by team, and more would have gone but for the attraction of the World's Fair at St. Louis, which is being held in my territory this year.

The interest taken in the World's Fair has made it unnecessary to hold state fairs close; however, I look for a large movement for next spring as the result of the exhibition of our products, and also an immense quantity of literature will be distributed.

The presidential election which occurs this year has had its effect on my work, and when to this fact the promise of a large amount of homestead lands to be opened for entry in the United States and increased activity on the part of American railroads interested in showing southern lands, are taken into account, the results accomplished by us may be considered fair. These railways have agents at all cities and towns on their lines, who hold annual passes; also at northern and eastern centres, from which they draw their immigration; any person taking two prospective buyers over their lines to examine country can get free transportation.

As in the past, I credit judicious advertising for a large part of the success in moving the people to our country from here, and am of the opinion that good results would follow increased expenditure in this line; I also think that in all the southern states the best results come from work done in the fall, as most of the rentals are made prior to and during the holidays for the next year; this is necessary on account of early opening of spring here.

The system lately adopted by the department of furnishing agents with information about condition of homesteads has proved valuable, and I think can be amended so as to show their desirability either for agricultural purposes or ranching; short reports of inspectors and government land agents should be added.

In conclusion, I beg to say that the outlook for next year's emigration from the south to our country is that it is likely to be much larger than last year; much depends, however, on reports of crops sent back to their homes by those already there for this year.

Your obedient servant,

JOHN S. CRAWFORD,

SESSIONAL PAPER No. 25

No. 16.

REPORT OF C. O. SWANSON.

ST. PAUL, August 13, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour of submitting to you my report on immigration for the year ending June 30, 1904. Taking it as a whole, it has been a prosperous year, although the floods in the spring were a great setback to the work, as a great many had planned to come into the country to look it over who could not then, but I am in hopes to get a good many of these after the harvest.

Real estate is not as saleable now in the western states as it was formerly, and that keeps a good many from coming who would do so if it were otherwise; and, as you know, the United States government have opened up reserves, and have held out strong inducements to their people to keep them there; but in spite of all that the work done by the immigration department has taken a deep root among the Scandinavian people, and they will come all right.

You would think, after all the advertising and agents employed by the Department of the Interior, that everybody should know all about Canada, but I often meet people while travelling who know nothing about it; for instance, while going from the Soo to St. Paul I met three Scandinavians from Pennsylvania going to North Dakota to look for land; they knew nothing about western Canada, but after talking with them, they decided to try Canada, and they are well satisfied and will bring a good many into the country.

I repeat what I have said in former reports, that the contented settlers make the best agents when we can get good letters from them as to how they like the country, and sometimes they are too good to appear in print, as they often forget to say anything about the drawbacks.

I started the excursions this year in March, had two in April, and one every month since, and have advertised them up to November. Through these excursions I have brought a lot of people into the country.

Our correspondence is much larger this year than any previous year, and I expect a large and steady immigration of Scandinavians from the United States to Canada. We also expect great results from the building of the new railroads through the country.

Immigration from Sweden and Norway has increased largely during the past year; we have brought out 196 servant girls, who have been placed in different parts of the country; they are in great demand; we have more inquiries for them than we can supply; the most of these girls also do good immigration work in sending for their friends.

The settlers seem prosperous and contented and the crops look fairly well.

Your obedient servant,

C. O. SWANSON.

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No. 17.

REPORT OF REV. M. BLAIS.

DOMINION IMMIGRATION OFFICE,

49 RUE CATHEDRALE, MONTREAL, June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to inform you that since my report last year a considerable part of my time has been employed in corresponding with people from Europe, from the United States and from Canada. I have successfully organized several excursions to Manitoba and to the North-west. At the office I have answered hundreds of persons asking for information. I have helped a large number of colonists leaving for the Canadian west. I visited several centres of the province of Quebec and the United States, where I delivered lectures, and I am happy to state that practical result is satisfactory.

Your obedient servant,

M. BLAIS, *O.M.I.*

No. 18.

REPORT OF A. RIBOUT.

MATTAWA, July 26, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg leave to submit to you the following report of my work for the year ending June 30, 1904 :—

From July to October I devoted my time to visiting our colonization districts, and accompanying many delegations and new settlers coming from the eastern states through our new settlements, principally in new Ontario and in northern Temiscamingue, and at the same time visiting the new settlers established during the preceding fall and spring. During the winter months, from October until May, I delivered twenty-one lectures in the eastern states, eleven in the province of Quebec, and two in eastern Ontario. In every case the audience was large and very attentive. In the eastern states the French Canadian people are very anxious to know particulars about the progress of agriculture and industries in general in Canada, and when my lectures were over, I had to answer many special questions about the new settlements. During my lectures I have particularly called the attention of my audience to the advantages offered to settlers with a small capital in New Ontario, principally in the districts of Nipissing, Algoma, Thunder Bay and northern Temiscamingue and in the county of Pontiac in the province of Quebec.

During this spring we had a large number of new settlers in these new settlements, and they appear well pleased with their new establishments.

During this year I delivered certificates for reduced transportation as follows :—

To thirty-seven families coming from the United States.

To five families coming from France.

To thirteen families coming from east Ontario.

To twenty-six families coming from province of Quebec.

To three families coming from Belgium.

Making a total number of 460 adults; and I know that a greater number came through our country with certificates delivered at Montreal; but I claim that all those people came to this country through the propaganda made by me.

These settlers are distributed as follows :—

Forty-three families are settled in Temiscamingue, P.Q.

Three families are settled in Ontario.

Thirty-one families are settled in the district of Nipissing.

Six families are settled in Manitoba and the North-west.

I know also that a certain number of families went into the Thunder Bay district through my propaganda; but those coming from Massachusetts made their arrangements for transportation with the Canadian Pacific Railway agent at Boston through my recommendation, and those coming from Michigan went there with direct arrangements.

I have attended to a very large correspondence this year. I have received 893 letters, I have answered 833, and I have sent 870 parcels of pamphlets and maps, which amount to 3,480 pamphlets and 367 maps.

The capital in money and stock taken in by those I have reports from amounts to from \$200 to \$700; some have \$1,000 and others \$1,200 to \$1,500.

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I must also say that a very large number of French Canadian people in the United States, who are very poor, would have liked to come back to Canada as settlers, but I did not encourage them, considering that they are not a desirable class of settlers, though they are good workers; but according to my experience they very rarely succeed in farming, and then they make false reports on the country which give us more trouble than help for the ensuing year.

The prospects are very good for 1904-1905 in New Ontario and Temiscamingue settlement, I having attended to an excursion in the Temiscamingue three weeks ago, in which about 200 people took part. Many of them bought and made choice of government lots, to take possession next fall and spring.

The crops of every kind this year are very beautiful, and if weather permits our settlers will have a very exceptional harvest.

As for New Ontario, everything is in very great abundance this year.

The Ontario government is constructing a new road from Warenes to the French River Valley that will give access to that beautiful country, which is already occupied by over 160 families, succeeding very well. With that new road, there is no doubt that we will double that population at least in two years.

Your obedient servant,

A. RIBOUT,

Dominion Immigration and Colonization Agent.

No. 19.

REPORT OF DAMASE GAUTHIER.

VILLE MARIE, June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—Having especially in view the favouring of colonization to the new regions of Lake Temiscamingue and Lake St. John, in the province of Quebec, I visited these two regions during the months of July and August, 1903.

In the month of September I went to the eastern United States, where there is a large population comprising French Canadians, whom I am interesting to come and live in Canada.

I worked at my mission in the state of Massachusetts at Lowell, Salem, Lawrence, Fall River, Haverhill and New Bedford; in the state of Rhode Island at Providence, Woonsocket, Central Falls and Olneyville; in the state of Vermont at Newport, St. Johnsbury, St. Albans, Burlington and Winooski; in the state of Maine at Portland, Westbrook, Brunswick and Biddeford; in the state of New Hampshire at Nashua.

I also did colonization work in the province of Quebec, particularly at St. Lin and at the Laurentides, but without neglecting the eastern states, to which I was assigned. My work was as follows:—

1. House to house visiting. This mode is difficult to practise, seeing that the class which I ought to visit are for the most part workmen employed in the factories, who are at their dwellings only in the evenings and on Sundays. In this case I have visited only where I was asked to do so, either verbally or by letter.

2. Articles in the papers. I wrote a dozen articles on 'Canada' over my own signature. I published them in some papers in the United States, particularly in the *Daily News* of Burlington, the *St. Johnsbury Republican* and the *Newport Standard*. Besides that, I gave news and information about Canada and colonization in Canada to newspaper reporters in the towns through which I passed.

3. Correspondence. My letters are not numerous; not being able to correspond in a way satisfactory to those who write to me, on account of the journeys I make every month, I cannot think of increasing my correspondence. Needless to say, the letters I receive never remain unanswered, even if there is an inevitable delay in answering them.

4. Distribution of literature. Formerly I sent the department lists of names with addresses, in order that pamphlets and maps relating to these new regions of Canada should be sent, which were a great satisfaction to those who received them. Since the month of April I have distributed them myself.

5. Lectures. Lectures and the organization of assemblies, that was my principal work. I am a lecturer. I believe that it is the most efficacious means of making the country known, and of promoting repatriation. I have delivered about twenty-five lectures before audiences which were generally numerous.

I have the good fortune to be able to affirm that in the eastern United States the opinion about Canada and colonization in Canada is very favourable. There is no longer discussion about the matter; it is universally recognized that Canada is the country of the future, offering exceptional facilities for the settlement of a large family, and for assured investments for those who have capital.

The French Canadians settled in the United States, in general, desire to return to their native country; they intend to do so, and before long we shall see them come back one after the other. We have let seed fall, which has fallen on good soil. There is good reason to expect a good harvest.

Your obedient servant,

DAMASE GAUTHIER,

Immigration Agent.

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No. 20.

REPORT OF REV. H. L. VACHON.

SAGINAW, MICHIGAN, July 14, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg to submit to you my report for the year ending June 30, 1904.

During the year I have worked in the following states: Minnesota, North Dakota, Michigan and Wisconsin. It is especially in the French settlements of these states that my labours have been spent. I have given eighteen lectures, distributed several hundred pamphlets, and written as many letters to people asking for information about Saskatchewan. The work has not been without result. It is noticed that the number of French settlers from the above mentioned states has been increasing this year.

I could not at present give exactly the number of people whom I have determined to settle in Canada, as in most cases the people applied to the local agent for certificates for settlers' rates; but I may say that I have contributed by my lectures and letters to send the greatest part of French settlers who came from Michigan, Minnesota and North Dakota.

I must not omit the fact that I have organized four delegations, and that I have accompanied the delegates to Saskatchewan. These delegations have been of great assistance in advertising western Canada. The delegation from Argyle, Minn., which I took to Battleford will be the means of bringing into our country a good number of excellent settlers formerly from Canada. One of the delegates, Mr O. Forest, is established in the west, looking after the interests of the colony, where already some eighty homesteads have been taken up.

Your obedient servant,

H. L. VACHON, *O.M.I.*

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No. 21.

REPORT OF R. A. BURRISS.

PORT ARTHUR, ONT., July 11, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I beg to report as follows with respect to the immigration work done in western or New Ontario for the year ending June 30, 1904. In order to be as concise as possible, I will arrange it under the following heads, viz.: 1. Plan of work. 2. Results. 3. Prospects for 1905.

1. The plan of work which I find most successful is first to get the people interested in the advantages offered in our districts by placing before them reliable information regarding the mining of gold, silver, copper and iron, our lumbering and fishing industries, besides a land rich in agricultural possibilities. These advantages are exceptional; 160 acres free, covered with timber, all of which is valuable for building, for market and free fuel, exception from direct taxation and abundance of good, pure water, and a healthful climate. Various means are resorted to in order to place these advantages before the people. No advertising is done after the ordinary real estate method. Articles designed to awaken an interest are written for religious and secular papers throughout the United States, which are published to a large extent, free of charge. I pay for some of these reading 'ads' from 5 cents to 10 cents per inch. Advertisements are inserted in the papers calling for the names of ten or more tenant farmers. The senders of these names receive a nice maple leaf broach, or a Canadian souvenir of some kind for services rendered. The tenant farmer whose name has been secured is supplied with 8 ounces of valuable literature, most of which has been prepared in our office, consisting largely of letters from the settlers themselves. This method of attracting the attention of a desirable class of settlers has been very productive of good. Another system of reaching the people has been accomplished, by having photographs taken of the homes of settlers who have made a success. These photographs and descriptions are sent to the leading papers in the United States, Scotland and elsewhere, published free. Another valuable means of disseminating information is by securing representative men to visit our various settlements, and to enjoy the hospitality extended to them, and to hear from the settlers' own lips the story of their success. We have numerous stations all over the United States. Men who are interested in helping poor men get homes in a free country; men who have turned their homes into veritable depositories for information, and many of them deliver lectures, and otherwise help in the work. Some of them are supplied with stereoscopic views. All of this work is done by these men free of charge. Possessing a thorough knowledge of the wants of the people, and having entered this work with the prime motive of improving the condition of the renting farmer and others who are being oppressed, and being located in the very heart of New Ontario, my opportunity for promoting the work is excellent in every particular. My plan of work in the field is thoroughly systematized. First—attract the attention of the would-be settler. He expresses his desire to come and investigate, or more frequently he wishes to come with his entire family and possessions. He is then supplied with an order for a certificate. When this is returned to us properly filled out, then we send a certificate, for which on presentation to the Canadian Pacific Railway agent at Detroit or Windsor, for example, he will be given a settler's rate to Port Arthur or as far west as Dryden for \$13. These low rates

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for transportation for settlers are very much appreciated. When the settlers arrive they will be given rooms in the Immigration building for a week or ten days, which affords them a most excellent temporary home. The prospective settler is at once furnished with a land guide order, and cheap rates over the various railroads, with proper instructions where to locate. Usually within three to five days he is located, and has made some definite arrangement for the settlement of his family. Port Arthur is admirably situated for an immigration station. During the summer months settlers may come from all parts of the east and Europe either by rail or water, my certificates for low transportation being accepted by the Canadian Pacific Railway Company at any point along the international boundary. From this point settlers may be sent to any colony throughout the district at the usual settlers' rate. Another means of advertising was the New Ontario exhibit which was gathered from our districts and taken to the Toronto Industrial last year. We were given ample space, and our grains and grasses, with one hundred or more enlarged photographs, were placed on exhibition. Thousands of articles of literature were distributed to the people, which proved a most excellent means of advertising New Ontario as a mixed farming district. We have also organized the New Ontario Exposition. The first fair was held last year on the 29th and 30th of September and 1st and 2nd of October. The Ontario government gave substantial aid to this enterprise, and the railroads contributed largely to make it a success. Exhibits were carried free. In one instance a car of stock came three hundred miles. All who visited this fair were impressed with the progress that our new settlers were making.

2. *Results.*—This year has witnessed an unprecedented influx of settlers into the Rainy river valley, and these were not merely settlers of limited means, but men with capital who came to invest their money in improved lands. During the past eighteen months the town of Rainy River has sprung into existence, with a population of 2,000. They have municipal organization. They are installing electric plant, constructing sewers and waterworks, and have commenced the erection of a \$25,000 schoolhouse. They have two large saw-mills, one with a capacity of 400,000 feet per day. Fort Frances is destined to become a manufacturing town, and American capitalists are developing the International Falls. All of our other towns in Rainy River have witnessed an unusual growth this year. Outside of bona fide settlers who have located there, over 70,000 acres were taken by the veterans. At the present time our available free grant lands are exhausted, and we are calling for new surveys, which will be granted by the provincial government. One of the greatest difficulties to overcome in this wooded country is the lack of road accommodation. It is utterly impossible to secure sufficient aid to establish colonization roads fast enough to accommodate the incoming settlers. In many instances in Rainy river and other valleys, settlers have suffered great inconvenience and loss of time for the want of adequate roads. These wants are being remedied as fast as possible, but it is impossible to keep the road work in advance of the settler. The completion of the Canadian Northern Railway from Port Arthur to Winnipeg has facilitated the settlement of this great valley. The Whitefish river valley, on the Duluth branch of the Canadian Northern Railway, southwest of Port Arthur, thirty miles, has witnessed during the year a substantial growth. Five years ago we explored this valley, and concluded to place settlers in it. The settlement is now fifteen miles long and seven miles wide, more than 300 families and a population of 1,500. Three schoolhouses have been erected and maintained, and three other districts are being laid off. One new church has been erected and there are four or five other places where church services are held. Three saw-mills have been put up, and last year the settlers sold 300,000 ties and 800 car-loads of wood, which netted them about \$110,000. Good trunk line colonization roads have been constructed. The Finland colony, located in Lybster township in the Whitefish river valley, have proved themselves most valuable settlers, and are constantly being added to. The 'All-British Contented' colony in Strange township are forging ahead, and becoming accustomed to the conditions of the new country, and are happy and well satisfied. The Slate

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river valley, southwest of Fort William, known as New Illinois, in new Ontario, are succeeding beyond their most sanguine expectations. They are building a new brick schoolhouse, which will cost \$2,000, and their assessment equals, if it does not exceed, any rural district in the province of Ontario, the assessment being \$50,000. All of this speaks well for the colony. The colony established in Dorion township, on the Canadian Pacific Railway, east of Port Arthur, is assuming substantial proportions. This is largely a mixed community, made up mostly of French Canadians from the United States and English people. Two post offices, school and saw-mill have been established. Good colonization roads are being made. The Ontario experimental farm station is located at Dryden on the Canadian Pacific Railway. This settlement has made satisfactory progress during the year, a large number of German settlers coming from North Dakota. The Ontario government made a charge of 50c. an acre on the land in this portion of the Rainy river district, which has militated against the rapid settlement of the country. The townships of Gorham and McIntyre, north of Port Arthur, on the proposed line of the St. Joe Railway, are being settled mostly by French Canadians from Wisconsin and Minnesota and by Italians. New colonization roads are being built. It is proposed to construct ten miles of the St. Joe by fall. In the township of Oliver, all the partially improved lands have been taken up, and the settlers are all well-to-do. Two years ago a farmer came from South Dakota and purchased a slightly improved farm, paying \$500. Last winter he cleared a large area and hauled wood to market, clearing \$1,025. All the towns in Thunder bay and Rainy river districts are being rapidly populated by a splendid class of people. One gentleman from Ohio, after having purchased a \$12,000 farm in Manitoba, came to Port Arthur, and was so impressed with the country that he purchased 400 acres of land, and will reside in Fort William. The Pigeon River Lumber Company, from the state of Michigan, who have erected a large milling industry here, employ a great many hands. They run day and night, and their output is one-quarter million feet per day. More than 1,500 people have arrived from the United States and Europe, some bringing car-loads, and others from 200 to 10,000 pounds of effects. Some fifty car-loads of effects have been handled from old Ontario and other eastern provinces. Few go away, and our settlers from eastern Ontario are lavish in statements of satisfaction. During the year a vast amount of advertising matter has been judiciously distributed. More than 90,000 different articles of advertising matter have been mailed to the United States and Europe and placed in the hands of inquirers for information. About 4,800 letters answered; about 500 certificates issued.

3. Prospects for 1905 are good. The knowledge of the advantages available here is becoming widespread. Copies of our literature are being published in many of the leading papers in Europe and India. The best evidence of our settlers' success is that they are prevailing upon relatives and friends to come to New Ontario. The prejudice that once existed against this part of the country as a fit place for mixed farming has been exploded, and now our settlements are looked upon as a substantial product of our body politic. The policy of the people everywhere is 'build up New Ontario.' With our sixteen million acres of land to the north of us, and the prospect of the Grand Trunk Pacific Railway, we can give homes to thousands of families right in the heart of this great Dominion. I know no more promising field on the continent or where men of limited means can acquire a competency sooner and where wealth can be utilized to better advantage. We must invite enterprise and capital, for the basis of a nation's prosperity is the broad shoulders of her farmers.

Your obedient servant,

R. A. BURRISS.

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No. 22.

REPORT OF THE GENERAL AGENT OF THE COLONIZATION SOCIETY
OF MONTREAL.

MONTREAL, June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour of addressing to you the tenth annual report of the operations of the Colonization Society of Montreal.

The number of persons inscribed at the society's offices reaches 1,674, a slight increase on the figures of the preceding year. These colonists, or intending colonists, are divided as follows, according to the places of settlement which they have chosen or visited:—

| | |
|--------------------------|-------|
| Labelle region..... | 1,023 |
| Lake Temiscamingue..... | 138 |
| Matapedia and Gaspé..... | 89 |
| Lake St. John..... | 149 |
| Northern Ontario..... | 111 |
| Canadian West..... | 164 |
| Total..... | 1,674 |

Considered from the point of view of the place from which they come, the figures are made up thus:—

From the province of Quebec, 1,467; from the United States, 114, and 93 from Europe.

The increased grant allowed the society by the department is divided between renting, furnishing and maintaining offices at headquarters, and maintaining various sub-agencies in the province of Quebec and in the United States. The society has great hope from the work of these agencies.

A desirable immigration is coming to us from France. It is only the forerunner of more numerous groups which we expect in the fall and towards the end of next winter.

The officials of the office have used all diligence possible in responding to the needs of the new citizens of Canada, and facilitating their immediate settlement. A good number have gone west. Others, in also noticeable numbers, have bought or rented lands or engaged their services as farm labourers, which are always in great demand amongst the farmers of the old provinces. Others are employed in the construction of colonization roads, while waiting to take part during the course of the winter in the work of the shanties.

In return, the society will endeavour, as in the past, to contribute, according to its ability and means, to the progress of the work of peopling the country.

Your obedient servant,

T. A. BRISSON,

General Agent of the Colonization Society of Montreal.

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No. 23.

REPORT OF THE REPATRIATION AND COLONIZATION SOCIETY OF
LAKE ST. JOHN.OFFICE OF THE SECRETARY,
QUEBEC, August 29, 1904.The Superintendent of Immigration,
Ottawa.SIR,—I beg to submit the report of our society's work for the year ending June
30, 1904.

NEWLY ARRIVED SETTLERS.

| | |
|--------------------------------|-------|
| From the United States.. . . . | 1,114 |
| “ “ Province of Quebec.. . . . | 1,342 |
| “ “ “ Ontario.. . . . | 31 |
| “ “ “ New Brunswick.. . . . | 9 |
| “ “ “ Nova Scotia.. . . . | 14 |
| “ Australia.. . . . | 4 |
| “ France.. . . . | 189 |
| “ Belgium.. . . . | 64 |
| “ Finland.. . . . | 48 |
| “ Norway.. . . . | 57 |
| “ England.. . . . | 46 |
| “ Russia.. . . . | 7 |
| “ Sweden.. . . . | 73 |
| “ Germany.. . . . | 15 |
| “ Denmark.. . . . | 11 |
| “ Austria.. . . . | 3 |
| Total.. . . . | 3,027 |

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Nothing is better than facts; we are happy to reproduce the figures of the last decennial census as compared with the actual population of Lake St. John, according to the figures given by each curé in the diocese in December last, 1903. It will be remarked that since 1901 the population in that district has increased 6,639 souls.

| PARISHES. | 1901. | 1903. | Increase | De-crease. |
|--|--------|--------|----------|------------|
| Hébertville and Mission (St. Wilbrod)..... | 2,552 | 3,225 | 673 | ..... |
| St. Bruno..... | 986 | 1,015 | 29 | ..... |
| St. Henri de Taillon (La Pipe)..... | 303 | 307 | 4 | ..... |
| St. Cœur de Marie (Mistook)..... | 863 | 1,289 | 426 | ..... |
| Alma..... | 1,305 | 1,500 | 195 | ..... |
| St. Gédéon..... | 1,142 | 1,150 | 8 | ..... |
| St. Jérôme..... | 2,077 | 2,070 | 7 | ..... |
| St. André (L'Epouvante)..... | 402 | 622 | 220 | ..... |
| Chambord..... | 952 | 1,057 | 105 | ..... |
| St. François de Salles..... | 344 | 595 | 251 | ..... |
| St. Prime..... | 1,004 | 1,084 | 80 | ..... |
| St. Félicien..... | 1,370 | 1,541 | 171 | ..... |
| St. Méthode et la Doré..... | 639 | 800 | 261 | ..... |
| Normandin..... | 928 | 1,011 | 83 | ..... |
| Albanel..... | 335 | 379 | 44 | ..... |
| Roberval..... | 2,491 | 3,363 | 772 | ..... |
| Mistassini et Péribonka..... | 430 | 665 | 235 | ..... |
| St. Thomas d'Aquin and Lac des Commissaires..... | 532 | 719 | 187 | ..... |
| Chicoutimi..... | 5,633 | 6,500 | 847 | ..... |
| Anse St. Jean..... | 722 | 1,015 | 393 | ..... |
| Anse St. Félix d'Otis and Ste. Rose de Lima..... | ..... | 400 | ..... | ..... |
| St. Alphonse..... | 1,140 | 1,254 | 114 | ..... |
| St. Alexis..... | 1,619 | 1,564 | 345 | ..... |
| Laterrière..... | 871 | 835 | 36 | ..... |
| St. Dominique..... | 1,627 | 1,900 | 273 | ..... |
| St. Cyriac..... | 430 | 434 | 4 | ..... |
| St. Fulgence..... | 629 | 819 | 190 | ..... |
| Ste. Anne de Chicoutimi..... | 2,283 | 2,930 | 647 | ..... |
| St. Charles and St. Ambroise..... | 621 | 845 | 224 | ..... |
| | 34,259 | 40,889 | 6,639 | 43 |

The number of delegates that have visited the Lake St. John district is larger this year than ever before. All the delegates came back astonished with what they had seen, and highly praised the district as a colonization country. As heretofore, the Lake St. John Railway Company gave them free transportation.

The 189 delegates represented : 84 parishes of Canada; nine cities of the United States and Europe ; 29 different counties of the province of Quebec.

To that we must add 199 visitors who obtained half fare on presentation of a certificate testifying to their intention of settling in the region.

Colonists' excursions were run at very low rates, and were well attended in 1903. Many visitors have taken advantage of the occasion to visit and buy lands in the region. The dates of these excursions and the number of excursionists were as follows

| Date. | No. of Passengers. |
|-------------------|--------------------|
| July 7..... | 701 |
| August 25..... | 354 |
| September 22..... | 107 |
| September 29..... | 89 |
| October 6..... | 101 |
| Total..... | 1,352 |

The preceding year the total of excursionists was 1,257. To give some further idea of the popularity and usefulness of our society let us recapitulate as follows :—

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Two thousand nine hundred and twenty-seven new settlers, 189 delegates, 199 half-fare visitors, 1,352 excursionists; total, 4,667.

That is, 4,667 persons who have gone through our office with a view to either definitely settle or visit. Besides, we have received and answered 3,542 letters referring to colonization in Lake St. John.

Lectures on Lake St. John have not been neglected during the year; 27 of them were given, some by our secretary and a few by other lecturers. These lectures were given in the French Canadian centres in the United States as well as in Canada.

The industries in our region continue to progress, and that makes labourers very scarce throughout the region. Lumbermen are now paid \$26 to \$30 a month and board.

An American syndicate is now trying to negotiate the Peribonca water powers. Their engineer has lately visited the region.

An electric road is spoken of to run through all the parishes around Lake St. John. A local company intend building that road with local capital.

The Chicoutimi Pulp Company has just erected a new mill with an actual output of 70,000 tons of pulp yearly, and employs over one thousand men in the woods and nearly 500 in the mills.

The Peribonca mills are now in full operation, and they have succeeded in doubling the capacity of their power by directing the waters of the Lake Aigle in the Little Peribonca river. The Ouiatchouan Pulp Company also employ a good number of men.

Here is a list of the different industrial establishments along the line of the Quebec and Lake St. John Railway, its different branches, and in the Lake St. John region:—

| Saw Mills. | Where situated. | No. of Miles from Quebec. | Annual production in feet. | Pulp Mills. | Annual production in tons. |
|--------------------------|---------------------------|---------------------------|----------------------------|----------------------------|----------------------------|
| Heidritter..... | St. Gabriel..... | 16 | 8,000,000 | | |
| Kennedy..... | Lake St. Joseph..... | 24 | 6,000,000 | | |
| Julien..... | "..... | 24 | 2,000,000 | | |
| | Lake Sergent..... | 28 | 2,000,000 | | |
| | Bourg Louis..... | 30 | | Sissons..... | 1,500 |
| | St. Raymond..... | 34 | | St. Raymond Co., Limited. | 6,000 |
| Bornais..... | "..... | 34 | 3,000,000 | | |
| Kennedy..... | "..... | 34 | 10,000,000 | | |
| Côté..... | St. Léonard..... | 39 | 4,000,000 | | |
| Rondeau..... | "..... | 39 | 2,000,000 | | |
| Kennedy..... | Allen's Mill..... | 42 | 2,000,000 | | |
| "..... | Lake Long..... | 48 | 4,000,000 | | |
| "..... | Perthuis..... | 50 | 7,000,000 | | |
| Leveillé..... | Riv. à Pierre..... | 57 | 2,000,000 | | |
| Perron..... | "..... | 57 | 2,000,000 | | |
| Turner..... | Pear Lake..... | 101 | 10,000,000 | | |
| | Lake Edouard..... | 112 | 8,000,000 | | |
| Jalbert..... | Lac Bouchette..... | 160 | 4,000,000 | | |
| Saguenay Col. Co..... | Lac des Commissaires..... | 156 | 2,000,000 | | |
| | Metabetchouan..... | 158 | | Metabetchouan Pulp Co..... | 15,000 |
| | Ouiatchouan Falls..... | 183 | | Ouiatchouan Pulp Co..... | 15,000 |
| | Peribonca..... | 217 | | Peribonca Pulp Co..... | 9,000 |
| R.R. P.P. Trapistes..... | Mistassini..... | 246 | 2,000,000 | | |
| Price Bros. & Co..... | Metabetchouan..... | 181 | 8,000,000 | | |
| Tremblay..... | St. Gédéon..... | 191 | 3,000,000 | | |
| | Kénogami..... | 205 | 2,000,000 | | |
| | Jonquière..... | 217 | | Price Bros. & Co..... | 12,000 |
| | Chicoutimi..... | 228 | | Chicoutimi Pulp Co..... | 70,000 |
| B. A. Scott..... | Roberval..... | 190 | 30,000,000 | | |

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This shows that the Lake St. John produces annually 123,000,000 feet of wood and 138,000 tons of dry pulp.

Another source of revenue for the settler is the selling of his pulp wood, which pays \$3, \$4 and sometimes \$5 a cord.

Le Lac St. Jean, the official organ of our society, published at Roberval, gives each week all possible information on the region. It is distributed free as in the past to intending settlers.

As we already said, the Quebec and Lake St. John Railway Company gave free transportation to all settlers. Moreover, it carries 300 pounds of household effects for each adult and 150 pounds for each child. The railway has thus transported 2,925,000 pounds of settlers' effects during the past year.

We now have a regular steamboat service on the lake plying between Roberval and the newly opened parishes in the region.

Fourteen miles of winter roads and 20 miles of summer roads, total 34 miles of new roads, were opened during the past year by the Colonization Department of the province of Quebec.

The telephone service is to-day in a very good state. It connects all the colonies of the Lake St. John to those of Chicoutimi county.

It is now in contemplation to lay a telephone cable which would connect Roberval with Peribonca.

The Lake St. John fleet is now composed of nineteen boats plying between all the colonies, three of which are especially devoted to colonization.

We are happy to say that chances are very good at present in Europe to find a good class of immigrants. Many clergymen are actively interested in sending settlers, and there is quite a movement in Savoy, from which we already had two very substantial contingents. The present persecution against religion in France will do us good, and we may expect from there a splendid class of settlers, principally regarding their morals and religious principles, as the persecution is carried against the best religious part of France.

We have now secured the services of the Rev. J. T. Thibaut as lecturer and colonization agent in Canada and the New England states. He is a very active priest, and the best results are expected to come from his efforts.

During the course of the past year we have delegated to Europe one of our directors, Rev. Abbé J. E. Lizotte. Our secretary, Mr. René Dupont, went to meet him, as well as Mr. Smart, the Deputy Minister of the Interior, when he made the annual inspection of our agencies.

The Lake St. John Colonization Society, which has been so actively occupied during the last seven or eight years in colonizing this interesting part of the province, had long desired the establishment of an experimental farm, for the purpose of guiding new settlers in their work of clearing up land, and in their agricultural and dairying pursuits. In all its labours and enterprises the society has been very fortunate, especially in its work in France, and now it has completed the establishment of the Brothers of St. François Régis, on the banks of the Peribonca, one of the large rivers which empties itself into Lake St. John. The establishment of the agricultural order of the Brothers of St. François Régis at Peribonca, Lake St. John, merits some further notice. Founded in 1850 by Rev. Father de Bassy, of the Company of Jesus, the Brothers of St. François Régis have for their object the agricultural education of destitute orphans. Their venerated founder had a double purpose in view: to snatch from misery these poor children who were without any means of support, and to lead them towards that rural life which is too much and too often abandoned for a less healthy existence in the large cities. From 1850 to 1903 these brothers have brought up more than 5,000 young men, and made of them first-class gardeners, seedsmen, &c. These simple figures speak more than any possible commentary upon their success as educators. After many prizes obtained in competitions of all kinds, the Brothers of St. François Régis obtained the premium of honour in 1903 for the agri-

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cultural school of Roche Arnaud, France, where the mother house of their order is situated. In that country the brothers possessed five farm schools, situated in Velay, in Brittany, in Vendomois and in Provence. In these different provinces all the Catholic population aided them in their sympathetic work. Struck by the decree of expulsion against the teaching congregations, the Brothers of St. François Régis saw their farms confiscated, and were compelled to leave France. Established at Lake St. John, on the banks of the two Peribonca rivers, they built a house on Mr. H. J. Beemer's old farm, and commenced to clear the lots sold them by the government. As soon as they will have prepared for culture a sufficient quantity of land to furnish them with a living, they will immediately welcome the orphans who will be sent to them. The clearing will increase from year to year, and the establishment will witness proportionate development. The agricultural Brothers of St. François Régis have found good lands at Lake St. John, which will permit them to view the future without anxiety. Cereals, and particularly potatoes and fodder, flourish marvellously, and are of excellent quality. But in agriculture it is necessary to sell as well as to produce, and to support an orphanage it is essential to assure the success of the commercial side of the undertaking. From this point of view Lake St. John is in a better position than any other part of the country to furnish a good market for agricultural produce. The brothers have good hope of success with their charitable work. They have found a warm welcome here from both official personages and private individuals, which has contributed not a little to enable them to overcome the sadness of the adieu to their native land. Canada has now become their country, and it is with all their devotion as Christians that they are labouring to re-establish their work, which will now be for the benefit of Canadian orphans.

Our third edition of the *Settlers' Guide* has met with great favour all over. In the briefest possible space we have combined the maximum of information.

Our agencies are now working on a very satisfactory basis, especially the local agencies in Lake St. John for the distribution of settlers. Those in the United States could be put on a better footing, but our financial standing does not permit it for the present.

We have the pleasure to note that our society is making constant progress. Its membership is now over 1,200, and it has members in all parts of the world—in Asia, in Europe, as well as in America.

The following is an extract from the report of the Royal Colonization Commission :—

'The Colonization and Repatriation Society of Quebec and of Lake St. John advertises for recruits in Europe, in the United States and in the older parishes of the province; it does not lose sight of the settlers until they are established; it helps, encourages and protects them in the choice of lots. Above all, it is powerfully and efficiently seconded in its efforts by the Quebec and Lake St. John Railway, which generously gives reduced fares to visitors, free passages to settlers and their families, and conveys their baggage free of charge. The work of that society is certainly in the interest of the public and of colonization, and deserves to be encouraged.'

Hoping that this report will be satisfactory,

I remain, sir, yours very truly,

RENE DUPONT,

Secretary.

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REPORTS OF IMMIGRATION OFFICIALS IN WESTERN CANADA.

No. 1.

REPORT OF THE COMMISSIONER OF IMMIGRATION.

WINNIPEG, MAN., July 1, 1904.

W. D. SCOTT, Esq.,
Superintendent of Immigration,
Ottawa.

SIR,—I beg to submit the following report for the fiscal year ending June 30, 1904.

The statements of immigration agents, land guides and other officials directly connected with and under this office in western Canada indicate a considerable increase in the volume of business.

The most gratifying feature of our work continues to be that so few new arrivals find conditions here not to their liking; indeed, our agents who were specially instructed to report any dissatisfied persons passing eastward or southward have mentioned so few as to make that feature one of little consequence. In every movement of large numbers of people it is inevitable that a percentage will find matters unsatisfactory, owing, in some cases, to the person's own incapacity, or to the lack of reliable information, which might easily have been obtained from government sources; and while there have been some such cases, besides others who have been misinformed by persons outside the ordinary sources of government information, yet the percentage of disappointed ones, in my opinion, would not exceed one-half of one per cent of the total arrivals. In order to verify this apparently remarkable statement, municipal and board of trade officials have been consulted and have expressed the opinion that the number of unsuited immigrants is infinitesimally small. I regret to note, however, that small as this number may be, they appear to have free entry to the columns of British newspapers, and that such newspapers, without qualification or investigation, have unfairly published their reports, to the prejudice of our work, and in many cases to the detriment of the people themselves. I have had occasion to investigate such complaints, and in the majority of cases they have been proved to be foundationless, or the result of the new arrival's own incapacity, or determination not to find matters to his liking. The policy of the department has continued to be that of treating each individual case upon its own merits, and procuring the most suitable location for the individual concerned. This has increased the work of our officers to a system of complex detail relating to individuals, and when magnified by the immense numbers passing through our hands, must redound to the credit of those officers who have had the people in charge during the past year.

The immigration from the United Kingdom during the past fiscal year shows a gratifying increase over that of the preceding year, and whilst the largest proportion of the new arrivals were young men seeking work with farmers, it has been a particularly gratifying feature to note an increased number of very desirable families, who have arrived and secured work on farms. Large as the number of farm hands applying for work has been (with the exception of a short period in the late spring), we have not

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received a sufficient number of men to fill the applications placed in our books. This feature proves the continued and extensive development of western Canada, and plainly indicates a more extended area brought under cultivation each year.

The 'All-British' colony referred to in my last annual report has been fairly successful, and is dealt with more in detail in the report of the General Colonization Agent, and the agent of the department at the colony itself; but there seems to be no question that the result of these people leaning upon the originator of the colony instead of depending upon individual exertions, is shown by the fact that a number of them, although residing on their homesteads, have not progressed so rapidly as the other classes of people, who have been no greater length of time in western Canada. There has been a strange tendency to depend upon the value of co-operation by numbers, rather than individual work, resulting in the calling of many meetings to discuss points which might readily be decided by the individuals themselves, or, at any rate, individual exertion would have rendered many meetings unnecessary and undesirable from several standpoints. The contention of our officers is that a man can succeed on his homestead if he will attend to his business as he should, and only in a few isolated cases can the lack of rapid development in the 'All-British' colony be laid at the door of any one but the individuals themselves. The department has thrown open the balance of the land in this settlement for entry by others who did not come out in connection with this colony, and this is a wise and prudent action. It will place among the original arrivals new and experienced blood, and will be for the mutual and material benefit of all concerned.

As foreshadowed in my report of last year, the railway companies, real estate agencies and kindred bodies interested in the retaining of desirable people within the states of the Union, combined and by the aid of money, literature, &c., sought to head off a large number of American settlers who had intended coming to western Canada. This organized effort was met by the organization of the Western Canada Immigration Association, operating through officers in the United States and elsewhere. Added to the strenuous efforts of those opposed to emigration to Canada, must be recognized the all-pervading influence of the gigantic Louisiana Exposition, which will be open for some months to come. These two factors have combined to reduce the number of arrivals from the United States, but extra exertions having been put forth by the agents of the department, the decrease of the arrivals below that of the preceding year is not very much.

Thomas Gelley, our French interpreter, reports that the French and Belgian arrivals for the year are exceptionally good people, made a quick and good start in farming operations for themselves or for others, and are progressing to their satisfaction.

Officer John Wolff, German interpreter, reports the arrivals of Germans not as large as the preceding year, but altogether of a better class, and a larger percentage have at once taken up homesteads and made their homes thereon.

This officer visited nearly every German settlement, and found the people well satisfied, and in some cases very prosperous indeed, but many of them in the northern part of the Territories were anxiously looking for the Grand Trunk Pacific Railway to relieve their needs for travelling accommodation.

Mr. A. Hallonquist, the Scandinavian interpreter, reports that after visiting all the various Scandinavian settlements, he finds these people well satisfied, and sending good reports about Canada to their friends in the old country, and recommends that the railway company be impressed with the advisability of giving special facilities in the way of reduced rates to Scandinavians desiring to return to their homes to bring out friends.

Officer Joseph Polson, Icelandic interpreter, reports that during the year the Icelandic immigration came from two sources, i.e., from Iceland direct and from the United States. Those from the United States all had more or less means, in fact, one party had twenty-one cars of stock and effects. Most of them are now locating in the

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district lying between Foam Lake and Fishing Lake in Assiniboia. Many have come from North Dakota, and a colony of Icelanders in southern Minnesota, which is getting over-populated now, and the people there are looking for new localities. Some Icelanders, who moved to the Pacific coast (state of Washington) returned to Canada this spring, and have now taken up homesteads in the Foam Lake district in Assiniboia. The Icelanders generally are continuing to prosper, and prove excellent settlers in many walks of life beside farming, in which their success has been particularly noticeable. Officer W. H. Paulson has been engaged in Iceland for some months past.

Officer C. Genik, our chief Galician interpreter, reports that many of the Ruthenian immigrants during the year had their passage money paid by friends already in Canada. The steady increase of emigration in recent years has depreciated the value of farms in Galicia and Bukowina to an extent which makes it very hard for the owners to realize thereon and move to Canada. A large percentage of the people coming out this year left families behind them, and will earn sufficient money to bring them out at an early date. Others went at once to their friends and received advice and assistance from them. This interpreter estimates that about one-half of the total arrivals have either settled on land in western Canada, or temporarily made their homes with friends, who are already settled, and the balance are working as farm or day labourers before locating on homesteads of their own. A gratifying feature about these Ruthenians is that their great ambition is to own a free homestead, and the success of the older settlers renders it absolutely certain that they are a very desirable asset in the development of western Canada. Besides the Ruthenians, many Poles and Bohemians arrived during the year from Austria. These people were mostly labourers and townspeople, and very few went on the land. The Slavs who arrived from Hungary are at work as miners or labourers. This interpreter has had an opportunity of visiting most of the settlements, and reports that they are all making good progress, some of the older settlers having over 50 acres under crop, and 20 head of cattle, besides other assets, while many of the recent arrivals have at least five acres broken and under cultivation.

A decrease is noted in Hungarian arrivals, but the reports of their progress are very gratifying, and are dealt with in the subsequent report of Mr. Zoltan Von Rajes. One of our agents reported an inspection trip to the Hungarian settlement of Otthon, Assiniboia, where 125 Hungarian settlers arrived about twelve years ago, and few had any means to start with. Now they are all in good circumstances, and some very well off; in fact, one of these farmers had buildings made of solid brick, and as most of them own two or three quarter-sections their prosperity is evident. The crop conditions appeared to be favourable, and there is plenty of hay for settlers' purposes. A number of these farmers have been keeping large herds of cattle, as many as 80 head, but as each farmer is bringing more land under grain, they will be compelled to reduce the number of their stock. The crop acreage should average about 80 acres on each quarter-section in this settlement, 75 per cent in wheat and the balance in other grains. This colony is in a very creditable condition. The newer Hungarian settlements are progressing satisfactorily.

Officer Zoltan Von Rajes, Rosthern, Sask., the founder of the Hungarian settlement at Matyas Fold (Matthewsfield) in Saskatchewan, two years ago, reports a large number of Hungarians settled in the following townships: 39 in 24-27; 40 in 24-27; 41 in 25 and 26; 42 in 24-27; 43 in 25-26; all west of the second meridian. The harvest last year was good, but the colony used the crop amongst themselves. These people were poor on their arrival, have worked hard, and are succeeding very well. There is a marked falling off of the arrivals in this district, since this agent reports only 65 souls arrived there during the last fiscal year. The whole settlement have under cultivation 2,561 acres; they own 716 head of cattle and oxen, 96 horses, 757 hogs; and have sheep and a quantity of poultry, besides necessary agricultural implements for their work.

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Since the previous annual report the Doukhobors in the several districts of the North-west Territories have been very successful in their farming operations, and have at the present time a large number of acres under cultivation. I am pleased to report that nearly all of them are proving to be desirable agriculturists, whose chief ambition is to reap their reward from the land. Like every other community, these people have amongst them a small number of those who think it wrong to work for a living. They are being weeded out by process of time, and have probably left the colony for the colony's good. The Doukhobors in what is known as the Yorkton district have graded ten miles of good road in their district, and have fully twenty thousand acres under crop in excellent condition. They are starting a brickyard and other industries. They have already several sawmills and grist mills in operation, and with steam ploughs intend to cultivate a large area near the railroad and go extensively into wheat raising. At the suggestion of the department, Mr. Peter Veregin, the recognized leader of the Doukhobors, furnished a statement of their operations for the year 1903, which shows that they have spent a lot of money in livestock and implements, so much so, as to require the borrowing of \$60,000 through one of the banks. The fact that they were able to borrow this money without security affords abundant proof of the high standing which these people have amongst financial and business men. The Doukhobors have purchased 370 horses, 4 portable engines and 2 traction engines, with 6 separators, 2 saw-mills, 50 binders, 32 mowers, 45 disc harrows, 20 seeders, 16 wagons, 109 ploughs, 234 harrows, 12 fanning mills and 152 sleighs; and have spent many thousands of dollars on provisions, clothing and purchasing additional land to round off some of their farms. The total expenditure for the forty-seven villages in the Yorkton district was \$215,544, to meet which the men of the villages brought in from working on the railway over \$150,000. Some of the Doukhobors have already expressed their intention of leaving (and some have actually left) the community, for the purpose of taking up residence on their own responsibility upon their individual homesteads. These are applying for naturalization, and in due course will apply for a patent for the land in their own name. This individualistic sentiment appears to be growing, and as the matter is one of purely private concern nothing is being done to affect or hinder the same.

The large and expensive improvements to the terminal facilities of the Canadian Pacific Railway in Winnipeg, necessitating the erection of a new station, offices and other buildings, led to an amicable arrangement between the government and the railway company, whereby the land at the corner of Higgins avenue and Maple street, in the said city, on which the immigration buildings were situated, was exchanged for other land immediately contiguous to the proposed new railway tracks, and abutting the proposed new station buildings, forming a more convenient arrangement for all parties concerned, and furnishing additional land for a new and large immigration building, together with a spur track and platform in front of the same sufficiently large to care for ten coaches of immigrants at once. Unfortunately, the arrangements were in progress at such a time as to make it extremely difficult for our officers to afford reasonable accommodation for newcomers during the spring of 1904. The buildings themselves had to be moved from the old site to the new one, and great discomfort and hardship were only saved by the timely use of large numbers of stoves and very great patience and work on the part of our caretakers and other officers. During the season the department rented the old St. Lawrence hotel and a vacant warehouse, both near the railway station. In addition, a temporary building 40 x 100 was erected, and a large tent, 30 x 90, floored and framed, also provided as convenient to the main building as possible, in order to accommodate the large numbers requiring temporary shelter. It is learned with much gratification that the contract is about to be let for a new and large immigration building, which will obviate the necessity for renting totally unsuitable buildings, in addition to the public buildings which have already been erected. I cannot too highly commend the care with which immigrants have been received and treated by the officers of the staff under the extremely difficult and trying circumstances of the spring of 1904. With the regular buildings crowded, and three or four

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other buildings in the same condition, and not so suitable for our purposes, it would not be surprising if complaints had gone abroad concerning lack of reasonable accommodation. It is hoped, therefore, that the new and commodious building will be erected during the present year, as a survey of the district makes it quite evident that it would be impossible to obtain temporary additional accommodation for the large number of immigrants looked for next spring.

As usual, very large numbers of tents have been purchased, old ones repaired and distributed at various points where immigrants required temporary shelter of this kind, but at the best of times canvas is only a temporary convenience, and after two years' use most tents are absolutely rotten and worthless, necessitating a new supply from year to year. But notwithstanding this large item of expense, the department is justified in furnishing this temporary shelter wherever it may be demanded by any body of immigrants arriving from time to time. In addition to the large tents, it is now shown that the large supply of military bell tents which have been distributed from Winnipeg and sold to actual settlers at a nominal figure have afforded shelter to thousands of people who could not otherwise obtain the same. They have been distributed upon demand all over western Canada, and I give below a list of places from which these tents were finally distributed to actual settlers. Our stock is now almost exhausted, and the question will be raised next spring as to whether the supply on hand will be anything like sufficient for our needs.

The Dominion government have erected and maintained immigration halls at Saskatoon, Lethbridge, Moose Jaw, Yorkton, Qu'Appelle, Dauphin, Regina, Rosthern, Prince Albert, Calgary, Strathcona, Craik, Davidson, Duck Lake and Lloydminster, and have rented for the same purpose buildings at East Selkirk, Macleod, Saltcoats, Ponoka, Innisfail, Birtle, Minnedosa, Edmonton, Prince Albert, Rosthern, Olds, Battleford, Leduc, and have furnished suitable tent accommodation, or tents for sale, at the following points: Alameda, Arcola, Bonnington, Balgonie, Battleford, Blind Man's River, Brandon, Broadview, Calgary, Caron, Carstairs, Claresholm, Coutts, Dauphin, Davidson, Didsbury, Duck Lake, Dundurn, East Selkirk, Edmonton, Elkhorn, Estevan, Esterhazy, Glen Mary, Grandview, Grenfell, Halbrite, Hanley, Heatherbrae, High River, Herbert, Indian Head, Innisfail, Irvine, Killarney, Kaposvar, Lumsden, Lacombe, Lamerton, Leduc, Lethbridge, Lloydminster, Moose Jaw, Macleod, Macoun, Manor, Medicine Hat, Melfort, Milestone, Millett, Moosomin, Mowbray, North Portal, Okotoks, Olds, Osler, Ponoka, Prince Albert, Quill Lake, Fort Qu'Appelle, South Qu'Appelle, Red Deer, Red Willow, Regina, Rosthern, Rouleau, Russell, Ranchvale, Saltcoats, Swift Current, Saskatoon, Sifton, Solsgirth, Sprague, Swan River, Strathcona, Teulon, Treherne, Vegreville, Virden, Wapella, Wauchope, Wetaskiwin, Weyburn, Whitewood, Wilcox, Wolseley, Yellow Grass, Yorkton.

Officer Samuel Gray, in charge of the Labour Bureau, connected with this office, reports that during the fiscal year there were received at this office 3,354 individual applications for experienced farm labourers, and 2,076 inexperienced farm help—making a total of 5,430—and we were able to fill directly and individually from the office 3,112 of such applications. In addition, applications for 493 married couples for farms were received, and 461 were filled through this office.

In this connection, I beg to point out that there is an ever-increasing demand for experienced farm help and domestic help, and the only difficulty we have experienced at any time in placing all applicants with farmers has been in those cases of married couples who have large families of young children. This class of help are not readily placed, because of the lack of accommodation in farmers' houses, and it would be advantageous for the country as a whole, and the farming community in particular, if the latter could be induced to erect such additional house accommodation on their farms as would afford the necessary conveniences for families who would furnish permanent help on the farm and in the house from year to year. The rate of wages has somewhat increased for experienced hands, and of course during the harvest season the daily wage was more in evidence than the monthly engagement, and notwithstanding a good percentage of crop was partially destroyed during last season by frost, over

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10,000 harvest hands from eastern Canada succeeded in obtaining work last fall. In addition to the large number of English-speaking arrivals, who were furnished employment through this office, very large numbers of foreign-speaking immigrants secured work on railways and elsewhere; indeed, it has become quite evident that without the foreign immigrant, much of the hard manual labour in the construction of railways in western Canada could not be carried on at all.

Mr. Robert Adamson, who has been specially charged by the department with securing experienced farm labourers for Manitoba and the Territories, reports that as a result of his work in Scotland, he brought back with him the following farm help:—

| | |
|------------------------------|-----|
| Men, unmarried— | |
| Scotch. | 171 |
| English. | 2 |
| Irish. | 4 |
| Men, married—Scotch. | 3 |
| Women, married. | 3 |
| Children—Scotch. | 5 |
| A total of. | 188 |

It has been found by correspondence received from farm labourers coming under these auspices in previous years that they are eminently satisfied with their prospects and success, and although the accepted wage for the first year is \$225, beside board and lodging, eighteen of those who arrived in 1902 are now receiving \$300 per year with board and lodging. Others are farming on their own account, and, taking an average of thirty-six of these men, it is found that their present wages are \$265, with board and lodging.

The publication of letters from these Scotchmen has attracted much attention through other parts of the empire, and as a result correspondence concerning Canada has been opened up with residents of Australia, New Zealand and Rhodesia, besides Scotland.

During the last fiscal year the exhibition branch of the work has been largely increased, and considerable material was required for use at the Winnipeg Industrial Exhibition of 1903, and the St. Louis Purchase Exposition, which opened early in 1904. Large quantities of grain were purchased, but owing to the rather wet harvest season, the average of useful grain for our purposes was not as great as in former years, causing more expense and difficulty than usual, for this very necessary adjunct to the business of the department. The special staff charged with the collection and preparation of the exhibits distributed among the different government agencies in Great Britain and the United States 357 large cases of grain in straw and grasses and threshed grain, together with 158 cases of vegetables, dairy produce, fruit and honey.

The number of letters received in this office in the fiscal year ending June 30, 1904, was 28,175, and the number sent out was 29,554.

The increased area under crop in western Canada makes interesting reading in every annual report. The following table, for convenience of reference, gives a comparison of the area in crop in Manitoba for the last four years:—

| | 1901. | 1902. | 1903. | 1904. |
|------------------------------|-----------|-----------|-----------|--|
| | Acres. | Acres. | Acres. | Acres. |
| Wheat | 2,011,835 | 2,039,940 | 2,442,873 | Acreage not fur- nished by Manitoba Govern- ment. |
| Oats | 689,951 | 725,060 | 855,431 | |
| Barley | 191,009 | 329,790 | 326,537 | |
| Flax, Rye and Peas | 20,978 | 41,200 | 55,900 | |
| Potatoes | 24,429 | 22,005 | 27,198 | |
| Roots | 10,214 | 12,175 | 12,251 | |
| Total crop area | 2,961,409 | 3,189,015 | 3,757,173 | |

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It is gratifying to note that the total area in Manitoba prepared on December 1, 1903, for the crop of 1904, was 2,385,505 acres, an increase of 654,510 acres over that prepared on the corresponding date in 1902 for the crop of 1903. The average yield of potatoes in Manitoba for 1903 was 175 bushels per acre. The average yield of roots for the same period was 282 bushels per acre. Native hay yielded 1'4 tons per acre, and cultivated grasses slightly over that amount.

Poultry disposed of by Manitoba farmers :—

| | |
|---------------|---------|
| Turkeys..... | 88,726 |
| Geese..... | 34,270 |
| Chickens..... | 363,020 |

New farm buildings in Manitoba during 1903 are valued at \$2,961,752. These figures do not include buildings in cities, towns, or villages. They form, therefore, a very fair index of the prosperity of the farming communities.

At the end of 1903 there were in Manitoba 2,347 threshing outfits, as compared with 1,824 at the end of the previous year.

It is estimated that on December 1, 1903, 58 per cent of the total wheat crop in the province had been marketed.

During the year the farmers in Manitoba marketed 2,738,868 pounds of dairy butter, at an average price of 15½c. per pound, and 1,532,835 pounds of creamery butter at an average price of 18½c. per pound, realizing a total value of \$707,346.98. In addition, there was produced 1,382,304 pounds of cheese, at an average price of 11c. per pound, thus making the total value of dairy products for Manitoba farmers during 1903 \$858,709.26.

COMPARATIVE statement of area in crop in the North-west Territories for the last five years.

| | Wheat. | Oats. | Barley. | Flax. | Total. |
|-----------|-----------|---------|---------|--------|-----------|
| | Acres. | Acres. | Acres. | Acres. | Acres. |
| 1900..... | 412,864 | 175,439 | 17,044 | ..... | 605,347 |
| 1901..... | 504,697 | 229,439 | 24,702 | ..... | 758,838 |
| 1902..... | 625,758 | 210,367 | 36,445 | 17,067 | 989,637 |
| 1903..... | 840,674 | 440,662 | 69,667 | 32,431 | 1,383,434 |
| 1904..... | 1,054,212 | 654,649 | 111,979 | 20,938 | 1,841,778 |

The expectation of crop from the area under cultivation in the North-west Territories for the year 1904 is as follows:—

| | Bushels. |
|-------------------|------------|
| Spring wheat..... | 19,827,500 |
| Fall wheat..... | 125,200 |
| Oats..... | 19,395,500 |
| Barley..... | 2,927,500 |
| Flax..... | 220,950 |
| Total..... | 42,496,650 |

Some parts of western Canada suffered about harvest time in 1903 from cold and wet winds, which reduced the average crop per acre below what it promised early in the season. This was disappointing, and yet it is gratifying to know that even this reduced average was higher than the average of crops in the United States. Therefore, notwithstanding the destruction of some of the crops in certain localities, 10,000 harvest hands were carried from eastern Canada into the west to assist in taking off the

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crop, and of this number probably 2,500 remained permanently in the west. All arrivals secured work immediately at good wages, and much credit is due to the officials of the railway companies and the various governments interested, for providing the farmers in western Canada with harvest help they could not otherwise obtain.

David Morrison, immigration agent, East Selkirk, reports that during the year 5,773 souls received accommodation in the immigration building at that point, and were distributed to a great many points in Manitoba and the Territories. The number of foreign immigrants referred to is less than the previous year, but there is noticeable improvement in the financial capacity, health and appearance of those arriving during the fiscal year now reported upon. It would be advisable that this class of foreign immigrants should not arrive too early in the year. There seems to be a tendency to get out to Manitoba before there is work obtainable. In 1902 the earliest arrivals in large numbers reached Selkirk on April 16; in 1903 on March 25; in 1904 on March 15; and it was impossible to obtain work for them at the time, particularly as the spring of 1904 was a very late one. It would certainly be better for all concerned if these people could be induced to get here about the first or second week of April. This agent visited the Germans, Galicians and Icelanders at Poplar Park, Gonor, Goose Creek, Brokenhead, Gimli and Fort Alexander, and found they were all making splendid progress, many of them selling their oxen and replacing them with good horses.

David Wood, immigration agent at Teulon, Manitoba, reports the district improving very rapidly, and most of last year's settlers are on their farms and building houses for themselves. Three churches and four schools have been built during the year.

Mr. John McKinnon, immigration agent, Dauphin, Manitoba, reports the increased importance of his point as a distributing centre for settlers and persons seeking employment, as those seeking homesteads west of the Riding mountains and Duck mountains must pass through Dauphin. There have been a large number of men with families and single men of the labouring class placed with the farmers in this district, and at most periods of the year the demand for farm help is greatly in excess of his means to supply. The demand for female domestic help still continues a serious one. With a few exceptions, the arrivals from the old country at this point were young, intelligent and active, and should make most desirable settlers.

Hugh Harley, sub-land and immigration agent, Swan River, Manitoba, reports the year to have been one of prosperity and improvement, and large numbers of settlers have arrived. A new Swedish colony has been established twenty-five miles southwest of the town. These people arrived during the year, and have made an excellent start, having a saw-mill in operation and a school district formed. Seeding was late in the spring of 1904. The acreage under crop in this district is estimated as follows:—

| | Acres. |
|-------------------|--------|
| Wheat. | 35,350 |
| Oats. | 8,630 |
| Barley. | 2,000 |
| Pease. | 30 |
| Potatoes. | 300 |
| Roots. | 1,400 |

Some of the settlers in this district have between three and four hundred acres in crop; good prices are realized for farm lands, and unimproved railway land which sold for \$2.50 or \$3.50 per acre at the opening of this settlement a few years ago is now selling at from \$8 to \$12 per acre. The town of Swan River has shown surprising growth, now having a population of about 500 with all necessary stores and other places of business, including a hospital and telephone system.

S. N. Foster, acting immigration agent at Yorkton, Assiniboia, reports his district has progressed very satisfactorily during the past year, and newcomers find no difficulty in satisfactorily establishing themselves in one or two years. A large quantity of new

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land has been broken, and at the time of this report it is an easy matter to find a farmer who is willing to certify the desirability of the Yorkton district. The town of Yorkton and other towns on the railway have improved at the same pace as has the country.

Paul M. Bredt, immigration agent at Regina, Assiniboia, reports that during the year 1,958 souls were furnished with temporary shelter in the immigration hall at that point, but the accommodation was not sufficiently extensive for all those requiring this convenience. Accordingly, a new substantial and commodious immigration hall has been erected in that city, and will afford ample accommodation from this time on. Regina was crowded with a number of immigrants during April and May, owing to the accidental washing away of the railway bridge and portions of the track north of that city, causing the congestion of immigrants at this point. The railway company and the department expended large sums of money in providing for those who were compelled to remain at this point, but the expense of doing so was advisable as very few, if any, of the newcomers became discontented and refused to go on to their original destination. During the congestion mentioned an epidemic of diphtheria broke out, but by the exercise of strict quarantine and the best medical assistance the difficulty was overcome; only two deaths occurred as a result. This agent has the supervision of the colonies in the district, and reports them to be in flourishing condition, the buildings and the livestock particularly showing marked improvement. Judging from statements made by those coming from the States and other countries, it would appear likely that the immigration returns would have been heavier had those remaining at home been able to make fairly successful sales of the property they wished to dispose of. The crop conditions are estimated to be twenty-five per cent better than the previous year.

William Braun, immigration agent, Saskatoon, Saskatchewan, reports a very large and rapidly developing district. Over 600 cars of settlers' effects have been unloaded at Saskatoon during the spring of 1904, and averaging each car worth \$3,000 it would seem as if nearly \$2,000,000 has been added to the material wealth of this district during the past year. This agent reports a very large acreage of land broken with steam ploughs; crop prospects excellent; and general contentment appears to be very noticeable amongst the English, Scotch, American and German, and other farmers who have settled in this district.

William Plaxton, immigration agent, Prince Albert, Saskatchewan, reports that the immigration hall at his point accommodated during the past year 827 souls, most of whom homesteaded land in the Shell River and Birch Hills district. A large number of desirable immigrants have arrived and have been settled on land, or been furnished with employment. The crops are looking well and the settlers appear to be satisfied.

W. R. Ridington, immigration agent, at Lloydminster, Saskatchewan, who is in charge of what was originally the All-British Settlement, reports that during the year 510 homestead entries were made in that district, and about 1,300 persons settled there. Generally speaking, the original colonists have not succeeded as well as they might. There seems to have been too great a tendency to lean upon each other instead of working on their individual farms for their individual profit. Where the individual has been concerned with his own affairs and accepted the advice of the farm instructors furnished by the government, success has attended his efforts. Some of them have good houses, and from 50 to 80 acres in crop; others have good houses and from ten to fifteen acres in crop—the amount of ground being broken in 1904 is in excess of 1903. The number of horses and stock in the district is not as large as it should be, a number of animals having died during the winter through neglect and shortage of feed. There being no crop in last year, there was no straw, and a large percentage of the animals had to run out. Those which were outside fared better than those which were supposed to have been stabled, as a consequence the animals were in poor condition and work in the springtime was retarded. Some of these colonists went out to

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work for the winter and did exceedingly well, as they returned this spring with good teams and in a position to work their homesteads. The difference between those who stayed on their farms and worked at home or abroad during the winter and those who came to town to secure a lot and live thereon, is very marked; the former are in fairly good condition, while the latter are about as they were a year ago. It is hoped that the policy of the department of inducing a number of Canadian and American farmers to settle amongst these people will be of considerable practical benefit.

James Winn, immigration agent, Calgary, Alberta, reports that 1,317 immigrants have been accommodated in the immigration building at Calgary during the past year, the nationalities of such receiving accommodation being as follows: English, 402; Scotch, 135; Canadians, 184; Scandinavians, 73; Americans, 325; Germans, 105; French, 20; Irish, 33; other nationalities, 140. From the most reliable information, it is believed that nearly 15,000 immigrants passed through Calgary during the past year. There was an abundant quantity of hay during the season of 1903, but the quality was not as good as in previous years. The winter, however, was most favourable for range stock, very little feeding being necessary, and at the time of this report the conditions could not be improved, both as regards stock and crops. The loss of range stock during the winter was very light. The acreage sown to grain in this district is fully 30 per cent in advance of the previous season, and the improved conditions in certain districts show the advisability of the farmer preparing his ground in the fall instead of waiting for the spring. This agent reports it would be difficult to find a more contented lot of settlers in any other part of the country, and while the influx of men desiring work has been very large, the past mild winter afforded an opportunity for work on bridge building, &c., which has been very helpful. Much interest is centred around the very extensive works proposed by the Canadian Pacific Railway Company in constructing the irrigation ditch from Calgary eastward to Medicine Hat. Various estimates place the cost of the work at from three to five million dollars, but it is generally conceded that the project, when completed, will turn the waters of the Bow river on to land which is now only fit for ranching, and produce nearly three million acres of land suitable for raising crops. The town of Calgary appears to be an index of the prosperity of the district. It boasts a population, by police census, of 10,000 souls—nearly double the number four years ago. The assessed value of the city is now \$4,000,000, and a very large number of residences and other buildings are increasing the permanent value of the city from year to year. A sanitarium for the treatment of tuberculosis is being erected west of Calgary, and will remove danger from contagion which is evident when the afflicted ones stay at boarding houses or general hospitals.

Mr. Charles Mair, immigration agent at Lethbridge, Alberta, reports the total arrivals through Coutts (the port of entry from Great Falls, Montana), as being 3,187 souls during the fiscal year, declaring their destinations to be as follows: Southern Alberta, 2,313; Northern Alberta, 594; Assiniboia, 145; Saskatchewan, 67; British Columbia, 48, and other parts of Canada, 20. This officer notes that notwithstanding the special efforts made by American railways, banks, and anti-immigration bureaus in the United States, the arrivals at his point are slightly in excess of those coming during the previous fiscal year. These arrivals were mainly American and English-speaking, largely of British and Canadian stock, and he estimates the personal property brought in at that point by these farmers during the year to be worth \$200,000, excluding the vast numbers of live stock brought in from south of the line. The fiscal year just closed has been characterized by an increased confidence in the southern parts of Southern Alberta as a grain-growing region; the succession of recent wet years causing the grain to yield in a surprising manner, and as a result homesteading is proceeding very rapidly, and much capital has been invested in the purchase of adjoining lands. This officer rightly believes in the insurance from failure which irrigation secures for this district; intending farmers who heed this warning will find the investment of capital in irrigation a safe proposition, and when the present schemes are completed they will make half a million acres of land suitable for settlement; indeed, the effect of such works is bene-

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ficial to lands not themselves irrigable, but which may through access to water be turned to profitable use. The Stirling settlement was founded in 1889 by one of the Mormon leaders, and now numbers 700 souls, all prosperous, with about 3,500 acres under cultivation. The settlers' sheep numbered about 5,000, and the wool crop sold at 14½ cents per lb., being the highest price ever paid in this section. Fruit-growing, though experimental, is promising; every family has plenty of apple trees, and some are trying plums, prunes and pears; the chief hindrance to this industry is the prevailing high wind, necessitating the planting of windbreaks. Thirty-six horses were imported into this settlement in 1899, and the number now owned by these settlers has increased by purchase and otherwise to over 2,000 head. The Raymond settlement shows an increase of 30 per cent in crop area over last year. Last year about 1,000 acres of sugar beet were harvested, yielding 3,500 tons. This acreage has been increased to about 3,000, and the return promises to be about 6 tons to the acre. This settlement is not three years old, yet the town population is estimated at 2,200. There are 17,000 head of cattle and 10,000 sheep owned by settlers. The price of cattle continues satisfactory, picked four-year-olds realizing \$49 per head. The Sugar Company are contracting for sugar beets this season at \$5 per ton. The Magrath settlement is almost entirely composed of Mormons, and the grain crop is of small acreage this year, not exceeding 10,000 acres in all. Each farmer has from 6 to 12 horses of first-class breed, and if subsequent rains improve the grass crop, this particular locality will materially improve. The population of the village is about 1,000 souls, with good school, church and fairly good dwellings. The Spring Coulee settlement is composed mainly of settlers from Nebraska, Illinois and Iowa; their total yield of grain last year was about 55,000 bushels of wheat and 25,000 bushels of oats, and if this present season turns out favourably there will be about double this quantity. Farming began in this district three years ago. Fall wheat returned 35 bushels to the acre, and oats on new and prepared land returned 100 bushels to the acre. The farmers in this district are not easily concerned about the lack of rain, as they believe if no more rain falls the present season, there will be from 18 to 20 bushels to the acre, which is in striking contrast to the experience of one of them from Nebraska, who, in the year 1889, only cut 30 acres of wheat from 535 acres sown. There is little or no ranching in this district, but all farmers have more or less domestic cattle. The Cardston settlement is the oldest farming district in Southern Alberta; has a crop principally of spring wheat, and at the time of this report looking very fair. Cardston farmers are well off and depend upon their cattle and horses, grain-growing being as yet a side issue. The settlers tributary to Cardston own about 10,000 cattle and 1,750 horses, mostly raised in the district. The town population is about 800, but the farmers usually live on their homesteads and not in the village. The acreage in 1903 was about 5,900, the average return of wheat being 32 bushels per acre. This year's crop area is 20 per cent greater and includes 300 acres in sugar beets. At the time of this report rain is needed in this district, and as an indication of the increased value of land, improved quarter-sections bring from \$750 to \$2,000, according to improvement. The Taber district is an entirely new one, which is attracting a number of experienced and somewhat wealthy American farmers. This is their first year, and they have about 2,000 acres under crop, 500 of which is in Red Fyfe spring wheat. At the date of this report the crop appears to be in good condition. The Lethbridge district proper, radiating 12 miles from the town, is, with the exception of a few farms, all irrigable, and the appearance of the crops is excellent. Many of the farmers have not connected their ditches with the main canal, indicating the sufficiency of rain during the past four or five years. Settlers appear to be comfortably off, and own a large number of cattle. Poultry and dairying are profitable, butter never being less than 30 cents per lb., and eggs from 25 to 40 cents per dozen. The homesteads within a large radius from Lethbridge have been taken up so rapidly as to compel later arrivals to go further east, and they are now settling in the district known as Grassy Lake, midway between Medicine Hat and Lethbridge. The progress of settlement is shown in the fact that the number of hay

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permits during the past fiscal year is double that of the preceding year. The number of cattle in Southern Alberta was estimated at about 186,000 head, but the severe storms in February and March told heavily in the eastern portions of the district; to the west the loss is light, probably not exceeding 5 per cent. Opinions differ on this point, some of the best known ranchers believe that the loss is no greater than the preceding year. The horses which numbered last year over 21,000, have probably increased 15 per cent, but sheep have decreased by 35,000 head, the reason for this decrease being lack of range and the prevalence of the prairie wolf. The sheep industry should flourish under improved conditions, as after a particularly hard winter the lambs averaged 100 per cent, and the fleece 7 lbs. in weight, the wool crop alone bringing a cash return of over \$50,000. The mutton was sold at 5 cents (spring) and 4 cents (fall), and it has been suggested that a committee of experienced men may, with advantage, be appointed to examine the whole country and report upon these matters, particularly in view of the fact that the increased homesteading will further hamper the sheep and cattle rancher. The customs entries for the year at this port exceed those of the preceding year by about 500. The output of Lethbridge coal shows an increase of 25 per cent in the tonnage and a like percentage in the number of men employed, making a total output of 228,000 tons. The immigration hall at this point has been freely used by the settlers arriving, and afforded accommodation to 529 persons who occupied the same, a total of 3,276 days.

C. W. Sutter, immigration agent, Edmonton, Alberta, reports that owing to the non-completion of the railway east of Edmonton, the number of settlers going to that district has fallen off, but a large number of farmers are locating on purchased land in the district, and appear to be very prosperous. At the time of this report the crops are in excellent condition and show a substantial increase in area and every prospect of a heavy return.

J. M. McGovern, travelling immigration agent, east of Port Arthur, reports that the past has been one of the most successful and satisfactory during his twenty years' experience, in so far as the railway company has made greater efforts than ever to provide for the comfort and safety of the immigrant passengers passing through to the west; at the same time, he suggests that additional colonist cars are required. The work of the travelling agent is not by any means a sinecure. During a large portion of the year they are frequently on the road eighteen hours in the twenty-four, after which their time is largely taken up in making the daily report required for this office. The class of arrivals has been exceptionally good, and judging from conversation on the train, this officer is of the opinion that the young inexperienced Britisher who stays a year in Ontario before coming west is all the better for his experience. It is pleasing to note that so large a number of experienced farm labourers have passed through his hands this year, and he reports that not one of them has returned dissatisfied, the returning class being principally those whose former experience has unfitted them for life on a farm, or they were simply homesick; and possibly a small number of mechanics who had been misled by misrepresentations of unauthorized agents in the old country. The many nationalities represented among the immigrant arrivals proves that the information concerning Canada is being disseminated through very many parts of the world, thereby making Canada much better known than ever before. An increase is evident in the number of United States immigrants arriving by way of eastern Canada, which is evidence of the gratifying increase in interest through the states of Maine, New Hampshire, Vermont, Massachusetts, New York, Rhode Island, Ohio and Pennsylvania. Those passing through this officer's hands were experienced farmers specially adapted for settlement in western Canada. Quite a large influx from Ontario passed into western Canada, the people bringing with them their stock and effects. Considering the large number passing through on trains, there has been a remarkably small amount of sickness or indication of disease, and with the exception of an occasional case of measles, the only serious contagion was one case of small-pox, evidently contracted in Glasgow before embarkation, and arriving in western

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Canada fully developed. This gratifying condition is largely the result of the careful medical inspection at the seaports.

D. W. Agnew, travelling agent, with headquarters at Moosejaw, Assiniboia, reports that during the last twelve months 15,722 settlers passed into Canada over the 'Soo' line, bringing with them 2,563 cars of settlers' effects and stock. This shows quite a falling off compared with the previous year, which can possibly be accounted for by the washouts north and south of the line, which for five weeks, in the busiest portion of the immigration season made the railroad absolutely impassable. As evidence of the development in the districts contiguous to this line of railway may be mentioned that two elevators have been built at North Portal; one elevator and grist mill at Estevan; one elevator at Halbrite; grist mill at Weyburn; two new elevators at McTaggart; two at Yellow Grass; two at Milestone, and one at Rouleau. In addition, new sidings were put in between nearly all the stations on this railway. A large number of well-boring machines have been brought in by settlers themselves, and the difficulty of obtaining water has, to a great extent, been thereby overcome.

L. J. Clement, agent of Dominion lands, Brandon, reports that a very heavy influx of settlers has taken place in his district during the early part of 1904, the majority being from England. About 500 newcomers have been assisted to various situations during that time, the majority of course being with farmers, while many have bought or leased farms. Compared with last year's immigration in his own particular district, he estimates the arrivals to be nearly double, and notes with the rest of western Canada the necessity for a larger supply of desirable domestic help. The crop prospects are excellent, the estimated increase being fifteen per cent over the preceding year. The city of Brandon having developed into a distributing centre, the proposed new immigration hall will fill a long felt want, as during nearly the whole of the year new arrivals will present themselves requiring this temporary shelter, and the accommodation in the city is not sufficient for the purpose.

The agent of Dominion lands, Minnedosa, Manitoba, reports 271 homestead entries granted through his office during the past year, a decrease from the previous year, not caused by lack of demand, but because the demand could not be met, owing to the available desirable lands in the district being largely exhausted. Farm lands in the district have been changing hands freely at rapidly increasing prices. Notwithstanding the late spring, the area of land in crop is in excess of that in the previous year. Crops at the date of this report are well advanced, and give promise of an abundant harvest.

F. K. Herchmer, agent of Dominion lands, Dauphin, Manitoba, reports that indications point to a repetition of last season's good harvest. Considerable addition has been made to the area under cultivation. The coarser grains have only been grown for local consumption, and oats have been imported in considerable quantities for use on railway construction. More attention has been paid to stock, and the importation of first-class animals should be encouraged. Stock wintered well. Hay brought higher prices than ever. Many schools and churches have been erected, proving the permanent settlement of the district, and notwithstanding the shrinkage in homestead entries quite as many people came into the district as in former years. Many private sales of land have been recorded, and high prices have been obtained. Good wages have prevailed owing to the brisk demand for men, and the general health of the district appears to have been good. The number of homestead entries granted during the year was 379.

Mr. R. Claude Kisbey, agent of Dominion lands at Alameda, Assiniboia, reports the crop of 1903 very heavy in growth, but the continuous rains after cutting damaged some of the wheat. The crop prospect for the present season is satisfactory, not so much straw, grain healthy and heads large, and average 20 bushels to the acre. Most of the new settlers in this district are from the United States, many being returning Canadians, bringing plenty of American gold with them. All desirable homesteads are taken up within twenty-five miles of any railway in the district, and special care

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is being taken to cancel homestead entries which have not been completed by bona fide settlement. This policy is very beneficial, and secures for the district bona fide farmers who are doing well, and farming, as a rule, a half section of land each.

J. W. Hannon, agent of Dominion lands, Prince Albert, Saskatchewan, reports that owing to the unusual difficulty encountered by the railway service during the past spring, the settlement of lands in his district has been materially interfered with; the homestead entries have not reached the same high water-mark as they did last year, but the heavy stream of actual settlers going upon their lands has continued. The movement from Great Britain and from France has been more marked this year. Glen Mary continues to be the centre of the Scandinavian settlement, and the Hoodoo Plains are being rapidly settled by American-German Catholics, while many of the British newcomers have located at Shell Brook. The advance of the Canadian Northern Railway into the district is watched with great interest, and its early completion is very much to be desired. The prospect is favourable for good crops.

The agent of Dominion lands, Lethbridge, reports that southern Alberta is showing itself to be largely a mixed farming country, as well as one excellently adapted for stock, by the fact that homestead entries have greatly increased over the previous year. It appears that 1,731 secured homesteads in southern Alberta, and others have settled upon irrigated or railway lands. Most of these settlers are from the United States, and have sufficient means with which to commence farming. The oldest settlements have no homesteads now available, while new districts are rapidly filling up. The district appears to be prosperous.

The agent of Dominion lands, Calgary, reports that the immigration into the district has continued large, and settlement has directed itself rather more to the townships lying south of the main line than north. The number of homestead entries granted in this district was 2,676, an increase of 760 over the preceding twelve months. The settlers of the past year, as in previous years, have been of a very good class, and they appear to be well satisfied and contented. The city of Calgary itself has shown marked improvement in many ways, its population of 10,000 being almost double what it was four years ago. The crop does not appear to be up to the usual high average on account of rather too much rain, but the winter was exceptionally favourable, and stock came through well. Generally speaking, the prospects for a good crop and prosperity in the other industries are very gratifying.

The Agent of Dominion Lands, Red Deer, Alberta, reports a bountiful harvest was secured last year; large quantities of excellent hay put up for winter feeding; little snow until February, 1903, followed by cold weather, but live stock did not suffer. A large number of Texan cattle was imported into the Red Willow district east of Red Deer. Crops this year are in excellent condition, and not having too much rain, the roads are better than for some years past. The agent reports a Swiss colony situated in townships 38 and 39, ranges 18 and 19, west of the 4th meridian, to have received large numbers and are making good progress. A settlement of old country French farmers has been located in townships 38, 39 and 40, ranges 14 and 15 west of the 4th meridian. Quite a few Finlanders from the United States have settled near Snake Lake. All these people appear to be satisfied with their locations, and with the older settlers show excellent prospects. In this district there are now seven working creameries, all well patronized. In the town of Red Deer itself prosperity is very apparent, large numbers of buildings being in the course of erection. An important industry is the Blindman River Electric Power Company, now constructing their works at the junction of the Blindman river and the Red Deer river, and they intend to furnish electric power for industries and lighting in the adjacent towns. The district is gratified to see construction work commenced on a branch line of railway running east from Lacombe, and while the past year has been one of unprecedented prosperity for the Red Deer district, the correspondence would indicate something equally as good, if not better, for the coming year.

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A. G. Harrison, agent of Dominion lands, Edmonton, Alberta, reports that the arrivals in the district are mostly Canadians, British and Americans of a superior class. Some of the British settlers have gone sixty-five miles north-west of the town, while the Canadians and Americans appear to have gone eastward along the line of the proposed Canadian Northern Railway. The district is well settled within the radius above mentioned, and more surveys are needed in order to accommodate newcomers with free homesteads. The crop outlook is excellent, the large proportion of the crop sown being oats as usual, although the wheat acreage is on the increase. Live-stock appears to be in excellent condition, and while the present outlook is favourable, the district needs more railways and facilities for exporting and distributing the crop when grown. This agent remarks that throughout the entire district a feeling of confidence in the future is felt, provided the construction of the Grand Trunk Pacific Railway begins at an early date. Excellent reports on the capabilities of the Peace River country are received, but settlers are advised to locate nearer the present railways. Many settlers have used the North Saskatchewan River route from Edmonton to Fort Pitt; it has proved an easy way to travel, and furnishes a means of communicating with the interior and furnishing supplies for the accommodation of a large number of homesteaders who have pushed their way west of Battleford and into the Vermilion River district.

James Bannerman, agent of Dominion lands at Kamloops, B.C., reports the flow of immigrants to the agricultural parts of British Columbia greater during the past year than in the previous year. A number of the newcomers appear to come from the United States, and are making for the northern parts of the province in anticipation of the building of the Grand Trunk Pacific Railway.

John McKenzie, agent of Dominion lands, New Westminster, B.C., reports that notwithstanding the additional cost of transportation to this most western portion of the Dominion, a greater number than usual have come into that part of British Columbia, some of whom have settled in the Dominion lands belt, while others have purchased in the Okanagan Valley and other points where old time ranches have been sub-divided into smaller holdings for raising wheat, poultry, &c. As timber lands are being cleared, and lands are reclaimed, the dairy industry is attracting more attention. Well managed creameries are paying well. Chilliwack, Sumas, Matsqui and Mission City report very satisfactory progress, besides which a constantly increasing quantity of milk goes daily to Vancouver and New Westminster. The early opening of the \$1,000,000 steel bridge constructed for railway and wagon use across the Fraser river at New Westminster is expected to largely develop the central portion of the district lying south of the Fraser river. Although it is more difficult to make early progress in this district owing to the greater cost in the first instance in putting land under cultivation, yet the milder climate is attracting a number who have made money elsewhere, especially since satisfactory prices are obtainable for ordinary farm produce. Generally speaking, the district under the jurisdiction of this agent shows marked improvement over the previous year.

S. B. Paul, sub-agent of Dominion lands, Moosomin, Assiniboia, reports the acreage under crop in his district about twenty per cent in excess of the preceding year, and all settlers appear to be increasing the value of their farms to a very gratifying extent. Improved farms in this district now range from \$12.50 to \$27 per acre. There are no homesteads now available, and newcomers are obliged to purchase lands. This district appears to contain a great number of settlers from Great Britain, who are highly pleased with the conditions in which they are placed.

Spencer Page, sub-agent of Dominion lands, Wapella, Assiniboia, reports that most of the land in his district has been homesteaded, and only eighty-two applications for entry were made during the past year. The crop conditions are favourable, and general progress is noticeable in this district.

R. B. Taylor, sub-agent of Dominion lands, Grenfell, Assiniboia, reports that 114 homesteads were made at his office during the year, and most of the homestead lands

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have been taken up within a radius of forty miles. The settlers in this district come from all parts of the world, and special mention must be made of the settlement in townships 13 and 14, ranges 6 and 7, W. 2 M., known as the Stoetzel colony, containing about one hundred families of German-Americans, who came from Dakota, Minnesota, Wisconsin, Iowa and Illinois, whose progress has been very rapid and satisfactory. Throughout the whole district is every sign of advancement and prosperity, and crop prospects are particularly bright.

H. Martineau, sub-agent of Dominion lands, at Kutawa, Assiniboia, reports a steadily increasing population in his district, and settlements that one year ago had few people therein are to-day filled with settlers from all countries. Hundreds of homesteads have been taken during the year, and large tracts under ploughing and many comfortable dwelling houses are to be seen in every direction, and, in fact, prosperity presents itself to the eye of the stranger in this district.

F. J. Musgrave, sub-agent of Dominion lands, Estevan, Assiniboia, reports 505 homestead entries being made during the year, principally by persons of Scandinavian extraction and Germans, with a small proportion of Britishers and Canadians. No complaints have been heard, and the settlers appear to consider their treatment by the department as fair and reasonable. The prospects for harvest are very bright.

John R. Bunn, sub-agent of Dominion lands, Milestone, Assiniboia, reports a steady increase in the settlement of the Milestone district. About one hundred cars of settlers' effects have been unloaded at this point, the majority belonging to settlers from the United States. One hundred and sixty applications for homesteads were made in his office during the year. The population of the district is about equally divided between American and Canadian citizens, a number of the former being Scandinavians born in Sweden and Norway. The area under cultivation has doubled during the year, many homesteaders now having their entire quarter-section under crop, and buying adjoining land. In some cases a whole square mile is under cultivation. Three steam ploughs started to work in the vicinity; two have ceased operations because the engines were too light for satisfactory progress. A large area of land south of the Moosejaw creek and tributary to Milestone is still open for settlement. Some of it is more or less stony, but is generally rolling prairie, and suitable for ranching or mixed farming.

A. B. McGregor, sub-agent of Dominion lands, Davidson, Assiniboia, reports his district settling up very fast. Crops are looking well, and the people are well pleased with the prospects. The town of Davidson, which at the time of the previous report was practically not in existence, has progressed with the development of the surrounding country, and now boasts two general stores; two hardware stores; two large hotels; livery stable, blacksmith and machine shop, four implement warehouses, Dominion Lands office, sash and door factory and shops and offices, including a newspaper called the *Davidson Leader*. At this point it was found necessary to erect an immigration building in order to accommodate the large number of settlers going east and west of there.

Robert McIntosh, sub-agent of Dominion lands, Saskatoon, Saskatchewan, reports a considerable improvement in Saskatoon and surrounding district. Where last year farm buildings were built for convenience merely, they are now not only comfortable, but in many cases expensive and attractive. Land that was cropped last year has been re-sown and twice as much broken ready for next year. Steam ploughs are at work, and the country presents a prosperous and enterprising appearance. Schools are springing up in every place, yet there is room for more settlers. Through his office 1,279 homesteads were entered for during the year, the majority of these new-comers being well-to-do Canadian and American farmers, with a fair number from Great Britain. The district is clearly a mixed farming district, the land being splendidly adapted for wheat-raising, while at the same time it bears an abundance of grass. Surveys for new railways are being prosecuted in several directions, and Saskatoon bids fair to be a railway centre. The town itself now boasts four large churches, brick

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schools, three hotels, grist mill, three elevators, one cement works, brick works, cold storage, grain and other warehouses; and this officer is glad to report that the town council and enterprising business men of Saskatoon assist in every way the comfort and success of the new settlers.

M. J. Dubois, sub-agent of Dominion lands at Duck Lake, Saskatchewan, reports the crops looking exceedingly well and at the time of the report better than previous years. Old and new settlers are well pleased with the country. At this point a building has been purchased and is now being made suitable for an immigration hall, as it is found that Duck Lake is a very convenient point for settlers detaining who go east and west into new districts.

J. J. English, sub-agent of Dominion lands, Maple Creek, Assiniboia, reports the past fiscal year to have been very successful as regards new arrivals, the homesteads entered for being much in excess of any previous year. The new settlers are adapting themselves to mixed farming and dairying, which it is hoped, will prove profitable to them in a short time.

Joseph Nixon, sub-agent of Dominion lands, Macleod, Alberta, reports that during the fiscal year 462 applications for homestead entry were made in his office, and the number of settlers arriving and locating in that district was larger than in the previous season. Grain crops promise well, and all appear satisfied, and are making preparations for a much larger acreage next year. He mentions the district around Claresholm as being specially successful, and points to the fact that the settlers there purchased six car-loads of fall wheat for seed alone. The class of settlers has continued to be of a very superior kind, and no sickness has appeared amongst them. The building rented for immigration purposes at this point has been found to be of great benefit, and has been generally used by those who were unable to obtain hotel accommodation or desired to leave their families for a short period until shelter was erected on their homesteads.

J. M. Bender, sub-agent of Dominion lands at Nanton, Alberta, reports the crop showing well. About 300 homesteads have been taken up in this district during the present calendar year. The new-comers appear to be a very desirable class with means, and are already showing signs of settled prosperity.

W. E. Holmes, sub-agent of Dominion lands, High River, Alberta, reports that all the land within a radius of twenty-four miles east of High River is practically settled up, so far as homesteads are concerned, and as far west as the west boundary of range 2, w. 5th meridian. About 500 homestead entries were made at this office during the year, the greater number being people from the United States, all appearing to be well pleased with the country and its prospects.

Clinton C. Reed, sub-agent of Dominion lands at Ponoka, Alberta, reports that the new arrivals have been seeking land to purchase or rent, as a choice of homestead lands is not to be obtained within forty miles west or sixty miles east of Ponoka. This lack of homesteads, and the arrival of people at Ponoka who could not obtain same within a reasonable distance, have given the impression that a number of people have become dissatisfied with the country. It is understood that they have moved to other parts and secured what they desired. This condition emphasizes the necessity for more railways to reach the land which is now unsettled, but too far from railway communication to induce new arrivals to take the same up. The prosperity of the district can be measured by the fact that all sales of stock, &c., in the district have been for cash, and the goods offered bring a good price. The district is progressing satisfactorily. Schools are being established from time to time, and the settlers are taking advantage of the district, which appears to be splendidly adapted for the butter and cheese industry. The demand for good beef and milch cows is constant and active, and the general condition of all livestock appears to be good. The crop area, while somewhat increased, will not show as good result as previous years, and may be accounted for by the inferior quality of seed sown by the farmers. The lumbering industry is increased in the district, and two saw-mills will cut from three to four million feet of lumber this season.

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J. B. Holden, sub-agent of Dominion lands, Leduc, Alberta, reports the settlers well contented, and breaking a large acreage for next year's operations. The crops are somewhat later this year than last, but under favourable conditions, should give excellent results.

Alexander Stenberg, land guide at Ohlen, Assiniboia, reports New Stockholm colony making good progress, a lot of new land being broken each year. The homesteads are all taken, and the crop looks excellent.

Thomas Paulson, land guide at Foam Lake P.O., Assiniboia, reports a continuous stream of home-seekers since the spring opened, and most of the land is taken up in townships 32 and 33, ranges 15, 16 and 17, west of the 2nd meridian. Those settled appear satisfied, and have sent for their friends, which has caused rapid settlement of the district. Many are experienced farmers, and brought the necessary stock and effects to commence work immediately. The hay crop is abundant, and grain crops look well. This locality is now covered by the survey of the Yorkton extension of the Canadian Pacific Railway, which it is hoped will afford them relief at an early date.

William McTaggart, land guide, Swift Current, Assiniboia, reports sixty-four homesteads were entered at that point, and the wheat, oats and flax which have been sown in the district well advanced. He is of the opinion that if the settlers do their part, the land in this district is capable of producing first-class crops.

A. E. Guinn, land guide at Melfort, Saskatchewan, finds his district this year connected by the Canadian Northern Railway with the outside world, and realizes all that this means to the settler who homesteaded there in previous years, and very naturally reports a lack of unsurveyed land in his district to accommodate new-comers who have been crowding in during the past year. He reports that the homesteaders have become permanent residents, having built houses and broken considerable land, some having as much as fifty acres broken. The crop prospects are satisfactory.

Harry Botwell, land guide on the Vermilion river, Saskatchewan, reports extraordinary development and settlement of his district. He located his own homestead on section 36, township 50, range 6, west of the 4th meridian, ten months ago, and at that time there were only two other persons in the district within a radius of thirty miles all around. Since that time at least two hundred settlers have located within the area mentioned, mostly American and Canadian, and a few Britishers, all of a very desirable class, who have been busy breaking land and in building operations. This district is one of the best in western Canada, and when the Canadian Northern Railway, now located therein, is constructed, will be a specially fine locality for agriculture. The Vermilion river affords good fishing, and its banks contain an abundance of coal and timber. Plenty of first-class homesteads are yet to be obtained two or three miles back from the located railway, and another twelve months will see a great change in the Vermilion river district.

Alexander K. Thom, land guide at Quill Lake, Assiniboia, reports a large number of people settling in his district, well satisfied, and he believes are occupying one of the choicest spots in the whole great west. The advent of the Canadian Northern Railway through the district is increasing the value of the lands very considerably.

Matthew Cook, land guide at Lamerton, Alberta, reports the acreage under crop greatly increased over the preceding year, and prospects very encouraging. A very large amount invested in livestock is evidence of confidence in the future. He has not heard of a single dissatisfied settler, or any one desirous to return to the United States. This agent recommends that some of the smaller lakes be stocked with a supply of fish for the use of settlers. The construction of the railway from Lacombe east has greatly encouraged the farmers in this locality, and they are increasing their operations preparatory for next season.

J. H. Vanalstyne, land guide at Leduc, Alberta, reports the acreage in crop fifteen per cent larger than the previous year, and prospects very satisfactory. The cattle presents a splendid condition, and the increase is large. The hog industry is growing.

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and supplying a large pork factory in this village. The settlers appear to be an excellent class, and this agent recommends that a sum of money be provided for the purpose of making roads, so that they may get in and out to the railway without inconvenience or difficulty.

Thomas Baird, land guide, Red Willow, Alberta, reports upon the settlement of the district as far east as range 12, w. 4th meridian, where there is a lot of fine country, and room for many hundreds of settlers. A large majority of the new-comers have been from the United States, and their progress is marked by the numerous houses now dotting the landscape, which until this year was untouched by human beings. Crops of all kinds are doing well, with a largely increased area. Pasture and hay cannot be surpassed. Two saw-mills are at work on the Willow and Big Knife creeks, adding convenience to the settlers on their arrival. A French colony has been started in township 40, range 16, w. 4th meridian, and the colonists propose to erect a church on section 18 in township 40, range 15, w. 4th meridian. The great demand is for railways, and the settlers desire the Grand Trunk Pacific, or some other transcontinental built at once, as many of them are seventy-five miles from railway accommodation to-day.

Solomon Todd, land guide at Olds, Alberta, reports the crops are looking very well, and all indications point to a heavy yield. New settlers are arriving all the while, and all appear to be well satisfied with their condition. Over five hundred applications for homesteads were received at the Olds sub-land agency during the year.

Thomas M. Haig, land guide, Claresholm, Alberta, reports that during the year nearly nine hundred homestead entries were made in his district, and fully one hundred farmers purchased land. He says that the new-comers are principally well-to-do men with families. Fully two-thirds of the homesteaders have arrived and settled in the country. The crop prospects are excellent, and the settlers appear well pleased with their new homes.

J. S. McDonald, land guide at Heather Brae, Alberta, reports settlers moving into his district very freely, and it is nothing uncommon to see from ten to twenty teams with settlers' effects passing along in one day to the district east of Heather Brae. This agent meets most of them, and they are well satisfied with their choice of locality. The older settlers state that Alberta winters are much milder than in that part of the States whence they came. It is pointed out that some of the successful settlers arrived in the district with little or no money, and have now from sixty to two hundred head of cattle, besides other stock. There is great demand for railway accommodation, as the influx of settlers has compelled the new arrivals to go a long distance east.

From the foregoing it may reasonably be assumed that the development and settlement of western Canada, which took such a tremendous step forward during the preceding fiscal year, has been fully maintained during the year now closed. Such rapid progress and filling up of the country cannot but assure immunity from commercial depression for some years to come. Indeed, one cannot be over-optimistic if he states that the large influx of new arrivals, with their attendant means and effects, coming into western Canada year after year, precludes the possibility of any depression of an appreciable character.

The fact that there is so large an increase of land under cultivation proves the actual settlement of desirable agriculturists upon the land; and the general prosperity of those operating in the agricultural line becoming known to others outside Canada has caused, by a demand for land, a continued increase in land prices. The day of \$3 railway lands is long since past. The day of \$5 railway land has gone by; and indications are that, before 1904 closes, wild land that was \$3 some years ago will not be offered for less than \$8 per acre; and, even at this price, there is considerable margin for still further rise in value until the great disparity between the price of equal land in the United States and in Canada has largely disappeared.

Before closing my report, I desire to express the great satisfaction which the construction of the new immigration building at Winnipeg will afford those interested. It has been a much-needed accommodation, and it is hoped will afford necessary shelter

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and convenience for immigrants for some years to come. Nevertheless, indications show that within an early date smaller buildings will have to be erected to accommodate the large numbers who will be settling in districts of the North-west which are now practically unknown.

Respectfully submitted,

J. OBED SMITH,
Commissioner.

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No. 2.

REPORT OF C. W. SPEERS, GENERAL COLONIZATION AGENT.

BRANDON, August 12, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit to you a report of my work from June 30, 1903, to June 30, 1904.

In July, 1903, I inspected the British colony west of Battleford, and reported upon the work of the farm instructors, land guides and other officers engaged in permanently settling this colony, which is located about the 4th meridian, and the officers of the department did good work in giving the necessary instructions, finding the locations, and starting the colony in a proper manner to insure success. Finding the work of these officials pretty well consummated, the work was closed up.

I also inspected the Nestorian colony, settled in the vicinity of Battleford, and completed such arrangements as insured their permanent settlement. Reports dated July 7 and 23, 1903, addressed to the Superintendent of Immigration.

During the month of July I investigated the conditions on the Prince Albert Railway, being the work done by the Saskatchewan Valley Land Company, and I found that this company had placed about 946 settlers in what was known as the arid belt between Aldsbury and Hanley, and that this district was making great progress. Particulars are submitted in report dated July 24, 1903, to the Superintendent of Immigration.

During the same month I inspected the Galician colony at Rosthern, which was established in June, 1898, when about forty families were placed on the east side of the south branch of the Saskatchewan river. This colony has been supplemented annually, and at present we have about 5,000 souls. They have been in a position, like all other Galician colonies, for the past few years, to receive their fellow-countrymen and put them in a position to become established without incurring much trouble to the department. They have made great progress, have proved excellent settlers, are good workers, have given the best satisfaction to their employers, and the young women make good domestic servants.

I also inspected the Hungarian colony at Crooked Lakes. This colony is making good progress and possesses a good country.

I also made an inspection of the German Catholic colony, who had placed 500 families in a new district called Leofeld in the Crooked Lake district.

Also a report of the Doukhobor community on the north branch of the Saskatchewan River. These people have made excellent progress notwithstanding the fact that a few of them still retain some peculiar religious ideas. Their districts are supplied with excellent horses, a good equipment, and they are accumulating money very rapidly.

A report of inspection of the Barr colony, showing the progress made by the new British colony. About 250 families remained in the vicinity of the 4th meridian, which would be from townships 47 to 51, inclusive, ranges 23 west 3rd, to range 1, west 4th. In addition about 115 families were placed in Jack Fish Lake country. A number of others at Bresaylor, some at Eagle Hills, so that about 50 per cent of the original movement were placed in other districts, and a number of important and progressive British settlements will be established through this movement. Particulars

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of above nationalities in report dated July 24, 1903, addressed to the Superintendent of Immigration.

I accompanied the British editors through a portion of western Canada. They were received with great respect by all classes of representative people, and their trip through western Canada was of great interest to themselves and will be of great benefit to the country. Report August 27, 1903, addressed to the Superintendent of Immigration.

I placed the exhibit for the department at Springfield, Ill., and attended the Illinois State Fair. Our exhibit was very creditable and thousands of people saw the wonderful productions of western Canada and received our literature. This was one of the most perfect displays of our products that I have been permitted to place on exhibition in the United States. Report dated November 2, 1903, addressed to the Superintendent of Immigration.

Report to deputy minister on British colonies, August 21, 1903.

Inspection of Doukhobor settlement, Galicians and Germans, settled in the Yorkton district, all nationalities showing great progress. Referring more particularly to the Doukhobors, their crops were good, their net earnings from railway and other work amounted last year to two hundred and fifteen thousand dollars. They have replenished their district with four hundred horses, three grist mills, three saw-mills, eight steam threshers and an excellent equipment.

Galicians.—They were established in this district in 1897, they have become wealthy, are large producers, consume a great deal of our manufactured products. There is evidence of thrift everywhere among this colony.

Germans.—These people were established in 1890. They are among our best settlers and have become wealthy. Report dated September 8, 1903, addressed to the Superintendent of Immigration.

Under instructions from the deputy minister, dated September, 1903, I proceeded to inspect the British colony in Saskatchewan, looking into the progress and prospects of these people, completing arrangements for their accommodation and care during the winter, seeing to the building of an immigration hall at Lloydminster, the preparation of buildings at Battleford in the barracks, and examining the condition generally of these people. Complete report addressed to the Superintendent of Immigration, dated October 30, 1903. Also further reports dated November 9, November 21, 1903, addressed to the deputy minister and the Superintendent of Immigration.

Also the examining of the progress of certain British settlements belonging to the Barr movement, report dated October 30, 1903, addressed to J. O. Smith.

Inspection of Galician settlements, Shoal Lake and Strathclair, report November 26, 1903, to W. D. Scott, Superintendent of Immigration.

Report on Doukhobors in Yorkton, dated December 15, 1903, addressed to J. O. Smith, Commissioner of Immigration.

A full report of the colonization work done by the Saskatchewan Valley Land Company, addressed to the secretary of the Department of the Interior, dated December 22, 1903. This report shows sixteen hundred and forty-two homestead entries were completed as a result of this company, and these settlers placed in districts that we had been unable to colonize. Through their efforts other progressive colonies were established.

Report on Doukhobor community addressed to the Superintendent of Immigration, dated January 3, 1904. Also a report on future colonization work in Saskatchewan, dated January 3, 1904.

Inspection of Galicians and others in the Riding Mountain district, also report on new districts, dated January 15, 1904.

Reports, dated January 26 and 28, 1904, contrasting and comparing our immigration with that of other countries, showing that 95 per cent of all foreigners coming to Canada, seeking land and homesteads, become agriculturists and develop the natural resources of Canada, and that they have been a great acquisition to the labour market.

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Without them railway and other work could not proceed, they are frugal and self supporting from their arrival. They have a wholesome regard for Canadian law. The inferior type arriving comprise one-half of one per cent, so that Canada is securing a very superior class of people. That class coming into the United States comprise seventy per cent of their European immigration, not referring to the Argentine Republic.

A report on Galicians, Hungarians and Doukhobors in Saskatchewan, dated January 28, 1904, addressed to the Superintendent of Immigration.

Investigation and report at Yorkton, Dominion Lands Department, addressed to J. G. Turriff, dated February 8, 1904.

Report on districts for colonization in Manitoba, dated February 19, 1904, addressed to W. D. Scott.

Report on Doukhobor community in Assiniboia, March 4, 1904, addressed to W. D. Scott.

Report on the British colony, dated April 4, 1904, concerning the progress of the British settlers and the completion of arrangements to give them an advance of seed grain, full particulars of report to W. D. Scott.

Also list of all British settlers settled in Saskatchewan. Report bearing same date.

Inspection of town of Lloydminster under instructions of deputy minister, report to deputy minister, April 6, 1904. Report on delayed emigrants at Regina, to J. O. Smith, April 28, 1904.

I beg to observe that during the month of April traffic was intercepted at points in the United States and Canada owing to high water and wash-outs. Considerable detention was caused to settlers arriving at their destination. I was obliged to remain at Regina and other places caring for the delayed immigrants.

The settlers were cared for, and received every comfort. The districts where the seed grain supply was short were all supplied, and no hardship was encountered by the settlers while they were detained. Report dated April 29, 1904.

In May I proceeded to Lloydminster, inspecting the different settlements, as well as the British colony. Report submitted to the Superintendent of Immigration, dated June 13, 1904.

Also report on conditions existing on the Prince Albert Railway, dated June 13, 1904.

Under instructions from the Dominion Lands Department, I submitted a full report on the Doukhobor reservation in Saskatchewan, dated June, 1904.

I beg to state that the movement of immigrants for the past year has been very uniform, and that there has been a steady stream of very superior people. We have received about nine thousand five hundred Ruthenians; about sixty per cent of these have settled on land. We have received about eight thousand eight hundred Scandinavians, being Norwegians, Swedes and Danes. We have received about nine thousand Germans, and may expect this movement to be largely increased, as the German Colonization Company, when their people have arrived, will have a thousand families in the district of Saskatchewan, east of the river. We have had about two thousand French people. There is general contentment everywhere, and promise of an abundant harvest. Certain districts that have been considered arid and dry have been settled through the energy and policy of the department, and I am pleased to say that they are at present the scene of great agricultural activity, where for many years previous they remained uninhabited and barren. Our settlers are contented and satisfied, and have a bright prospect before them, and with the promise of increased railway facilities they are so hopeful that the productions of our good country will be carried to the market that great development will follow the next few years.

I beg to call your attention to some new districts available for colonization:—

Townships 51 to 53, inclusive, ranges 23 to 27, north of Prince Albert, west of the 2nd meridian, is especially adapted for Ruthenian colonization.

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Townships 44 to 42, inclusive, ranges 19 to 22, west of the 2nd meridian, is an excellent country, and contains a quantity of available good land.

Townships 4 to 7, inclusive, ranges 14 to 17 west 2nd meridian is a very desirable district.

Townships 7 to 79, inclusive, ranges 1 to 10, west 3rd, north of Wood mountain; also east side of Wood mountain, township 1 to 10, inclusive, ranges 25 to 28, west 2nd; Townships 1 to 10, ranges 11 to 14, west 3rd. Some very desirable colonization land in the Wood mountain district.

Townships 18 to 20, ranges 6 to 15, west 3rd meridian, between Canadian Pacific Railway and Saskatchewan river, is a beautiful open country, a good soil, and well suited for German people.

Townships 28 to 34, ranges 9 to 28, west 3rd meridian, west side south branch Saskatchewan river, opposite Hanley and Dundurn, contain a great quantity of excellent land.

Townships 40 to 43, ranges 20 to 24, west 3rd meridian; a beautiful open country, southwest of Battleford. The projected line of the Grand Trunk Pacific should open up the districts before mentioned.

Townships 45 to 53, ranges 17 to 30, west of 3rd meridian, north side of north Saskatchewan, in the Turtle river district, contains a great deal of very desirable colonization land.

Townships 43 to 46, ranges 11 to 13, west of 4th meridian, east of Wetaskiwin; there is considerable homestead land in this district of a good quality.

Townships 36 to 42, ranges 15 to 17, east of Red Deer. This is a very desirable district.

Townships 38 to 43, ranges 3 to 8, west of 5th meridian, west of Red Deer. There is much desirable homestead land here especially adapted for mixed farming.

I might intimate that from north of Prince Albert to Edmonton, from township 48 to 58, a distance north and south of sixty miles, from the 3rd to the 5th meridian, a distance of three hundred and sixty miles, there is a great deal of very desirable homestead land, and many progressive colonies could be founded. I might refer to the Swan river valley along the Canadian Northern Railway, the Carrot river district, the Kamsack and Quill lakes district; these are all very desirable districts, and homesteads can be readily secured in them. In conclusion, I beg to point out that the people settled in western Canada are making good progress, and many wealthy colonies have been established during the last seven years. There is a prospect of an abundant harvest and a hopeful outlook for the future. Doubtless the progressive policy of the department has every assurance of the very best results.

Your obedient servant,

C. W. SPEERS,
General Colonization Agent.

4-5 EDWARD VII., A. 1905

REPORTS OF AGENTS AND OFFICIALS IN EASTERN CANADA

No. 1.

REPORT OF THE IMMIGRATION AGENT AT ST. JOHN, N.B.

(J. V. Lantalum.)

ST. JOHN, N.B., June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit for your information a report of the arrivals of passengers at the port of St. John, N.B., for the year ending June 30, 1904.

| | |
|------------------|--------|
| Cabin.. . . . | 542 |
| Steerage.. . . . | 12,023 |

Their destinations were :—

| | |
|-----------------------|-------|
| Cabin— | |
| Canada.. . . . | 538 |
| United States.. . . . | 4 |
| Steerage— | |
| Canada.. . . . | 8,841 |
| United States.. . . . | 3,182 |

And they were divided as to sexes as follows :—

| | |
|----------------------------|-------|
| Cabin, Canada— | |
| Males.. . . . | 328 |
| Females.. . . . | 156 |
| Children, under 14.. . . . | 54 |
| | <hr/> |
| | 538 |

| | |
|----------------------------|-------|
| Cabin, United States— | |
| Males.. . . . | 2 |
| Females.. . . . | 1 |
| Children, under 14.. . . . | 1 |
| | <hr/> |
| | 4 |

| | |
|----------------------------|-------|
| Steerage, Canada— | |
| Males.. . . . | 6,342 |
| Females.. . . . | 1,312 |
| Children, under 14.. . . . | 1,187 |
| | <hr/> |
| | 8,841 |

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Steerage, United States—

| | |
|-----------------------------|-------|
| Males. | 1,797 |
| Females. | 708 |
| Children, under 14. | 677 |
| | <hr/> |
| | 3,182 |

The steamships of the Eastern Steamship Company plying between Boston, Portland, Eastport and St. John landed 14,017 passengers, mostly tourists and returning Canadians.

The following statements are appended :—

tatement A.—Monthly arrivals of cabin passengers for Canada.

“ B.—Monthly arrivals of cabin passengers for United States.

“ C.—Monthly arrivals of steerage passengers for Canada.

“ D.—Monthly arrivals of steerage passengers for United States.

“ E.—Showing sexes, occupations and destinations of the different nationalities remaining in Canada.

“ F.—Showing sexes of the different nationalities going to the United States.

Your obedient servant,

J. V. LANTALUM,

Dominion Government Immigration Agent.

4-5 EDWARD VII., A. 1905.

STATEMENT A.—Showing Monthly Arrivals of Cabin Passengers for Canada.

| Nationalities. | SEXES. | | | | Months. | SEXES. | | | | NATIONALITIES. | | | | | | | | | | | | |
|------------------|--------|---------|-----------|--------|-----------|--------|---------|-----------|--------|------------------|-----------|----------|---------|--------|--------|---------|---------|----------|----------|----------|-----------------|---------|
| | | | | | | | | | | | | | | | | | | | | | | |
| | Male. | Female. | Children. | Total. | | Male. | Female. | Children. | Total. | Ret'd Canadians. | Tourists. | English. | Scotch. | Irish. | Welsh. | French. | German. | Italian. | Holland. | Belgian. | U. S. Citizens. | Totals. |
| Ret'd Canadians. | 67 | 31 | 7 | 105 | 1903. | 12 | 14 | 11 | 37 | 37 | | | | | | | | | | | | 37 |
| Tourists | 100 | 68 | 29 | 197 | July | 11 | 4 | 5 | 20 | 20 | | | | | | | | | | | | 20 |
| English | 126 | 40 | 10 | 176 | August | 8 | 3 | | 11 | 8 | | | | | | | | | | | | 11 |
| Scotch | 15 | 12 | 4 | 31 | September | 11 | 3 | | 14 | 13 | | | | | | | | | | | | 14 |
| Irish | 7 | 3 | 3 | 13 | October | 14 | 6 | | 20 | 8 | | | | 1 | | | | | | | | 20 |
| Welsh | 1 | 1 | | 2 | November | 23 | 8 | 4 | 35 | 4 | | | | | 1 | | | | | | | 35 |
| French | 2 | | | 2 | December | | | | | | | | | | | | | | | | | |
| | | | | | 1904. | | | | | | | | | | | | | | | | | |
| German | 4 | | | 4 | January | 12 | 6 | 1 | 19 | 7 | 2 | 1 | | | | 1 | | | | | | 19 |
| Italian | 1 | | | 1 | February | 59 | 33 | 3 | 95 | 23 | 35 | 30 | 5 | 1 | | | 1 | | | | | 95 |
| Holland | 1 | | | 1 | March | 87 | 29 | 15 | 131 | 25 | 16 | 65 | 8 | 9 | 1 | 1 | | 1 | | | | 131 |
| Belgian | 1 | | | 1 | April | 68 | 30 | 7 | 105 | 17 | 12 | 53 | 16 | 2 | 1 | 2 | | | | 2 | | 105 |
| U.S. Citizens | 2 | 1 | 1 | 4 | May | | | | | | | | | | | | | | | | | |
| | 2 | | | 2 | June | 23 | 20 | 8 | 51 | 7 | 44 | | | | | | | | | | | 51 |
| Totals | 328 | 156 | 54 | 538 | Totals | 328 | 156 | 54 | 538 | 105 | 197 | 176 | 31 | 13 | 2 | 2 | 4 | 1 | 1 | 4 | 2 | 538 |

J. V. LANTALUM,
Dominion Government Immigration Agent.

St. John, N.B., June 30, 1904.

SESSIONAL PAPER No. 25

STATEMENT B—Showing Monthly Arrivals of Cabin Passengers for United States.

| Months. | ENGLISH. | | | | U. S. CITIZENS. | | | |
|----------------|----------|---------|-----------|--------|-----------------|---------|-----------|--------|
| | Sexes. | | | | Sexes. | | | |
| | Male. | Female. | Children. | Total. | Male. | Female. | Children. | Total. |
| 1903. | | | | | | | | |
| July..... | | | | | | | | |
| August..... | | | | | | | | |
| September..... | | | | | | | | |
| October..... | | | | | | | | |
| November..... | | | | | | | | |
| December..... | | | | | | | | |
| 1904. | | | | | | | | |
| January..... | 1 | | | 1 | | | | |
| February..... | | | | | 1 | 1 | 1 | 3 |
| March..... | | | | | | | | |
| April..... | | | | | | | | |
| May..... | | | | | | | | |
| June..... | | | | | | | | |
| Totals..... | 1 | | | 1 | 1 | 1 | 1 | 3 |

J. V. LANTALUM,

Dominion Government Immigration Agent.

ST. JOHN, N.B., June 30, 1904.

4-5 EDWARD VII., A. 1905

STATEMENT C.—Showing Monthly Arrivals of Steerage Passengers for Canada.

| Months. | SEXES. | | NATIONALITIES. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--------|---------|----------------|--------|------------|----------|----------|----------|--------------|-----------|------------|---------|----------|--------|---------|---------|----------|--------|---------|--------|--------------|--------|-----------------|---------|----------|--------------|--------|---------|----------|-----------|------------|----------|-------|----------|---|
| | Male. | Female. | Children. | Total. | Australia. | Austria. | Hungary. | Bohemia. | Buckowinian. | Galician. | Hungarian. | Slovak. | Belgian. | Dutch. | French. | German. | English. | Welsh. | Scotch. | Irish. | West Indian. | Greek. | Russian Hebrew. | German. | Italian. | New Zealand. | Poles. | German. | Russian. | Austrian. | Roumanian. | Russian. | Finn. | Spanish. | |
| 1903. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July. | 14 | 9 | 1 | 24 | | | | | | | | | | | | | | | | | 10 | | | | | | | | | | | | | | |
| August. | 29 | 2 | 5 | 36 | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| September. | 11 | 3 | | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| October. | 4 | 2 | 1 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| November. | 314 | 116 | 120 | 550 | | 8 | 7 | 5 | 2 | 12 | 4 | 6 | 170 | 3 | 26 | 10 | 2 | 1 | 10 | 26 | 2 | 1 | 10 | | | | | | | | | | | | |
| December. | 655 | 284 | 227 | 1,166 | | 15 | 6 | 2 | 2 | 9 | | | 17 | 31 | 41 | | 349 | 6 | 70 | 20 | | | 9 | | | | | | | | | | | | |
| 1904. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| January. | 363 | 96 | 76 | 535 | | 14 | | | 2 | 26 | | 2 | 55 | | 4 | 3 | 138 | 2 | 21 | 9 | | | 4 | | | | | | | | | | | | |
| February. | 840 | 167 | 110 | 1,117 | | 26 | | | 10 | 9 | 11 | | 61 | 3 | 21 | 22 | 389 | 3 | 88 | 30 | | | 5 | | | | | | | | | | | | |
| March. | 1,680 | 257 | 262 | 2,199 | | 52 | 6 | 23 | 35 | 48 | | | 94 | 16 | 9 | 39 | 802 | 18 | 111 | 53 | | | 34 | 1 | | | | | | | | | | | |
| April. | 2,407 | 371 | 375 | 3,153 | | 56 | | | 107 | 446 | 22 | 2 | 75 | 1 | 7 | 63 | 983 | 4 | 88 | 88 | | | 16 | 1 | | | | | | | | | | | |
| May. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| June. | 25 | 5 | 10 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Totals. | 6,342 | 1,312 | 1,187 | 8,841 | 3 | 171 | 13 | 8 | 149 | 527 | 95 | 2 | 316 | 20 | 76 | 174 | 2,831 | 36 | 404 | 210 | 13 | 2 | 60 | 19 | 2 | 1,216 | 2 | 113 | 2 | 96 | 4 | 467 | 943 | 54 | 2 |

SESSIONAL PAPER No. 25

STATEMENT C.—Showing Monthly Arrivals of Steerage Passengers for Canada—Concluded.

| Months. | NATIONALITIES. | | | | | | | | | | | | OCCUPATIONS | | | | | | DESTINATIONS. | | | | | | | Totals. | | | | | | | |
|----------------|----------------|--------|----------|---------|-------------|------------|------------|----------|-----------|-------------------------|----------|------------------|-------------|---------|-----------------|------------|------------|---------|---------------|------------|-----------------|---------|------------------|---------|----------|---------|-----------|-------------------------|-------------------|---------------------|-----------|-------|--|
| | Swiss. | Danes. | Iceland. | Swedes. | Norwegians. | Armenians. | Egyptians. | Syrians. | Arabians. | United States Citizens. | Flemish. | Ret'd Canadians. | Tourists. | Totals. | Agriculturists. | Labourers. | Mechanics. | Clerks. | Miners. | Domestics. | Not classified. | Totals. | Lower Provinces. | Quebec. | Ontario. | | Manitoba. | North-west Territories. | British Columbia. | Returned Canadians. | Tourists. | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1903. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July..... | | | | | | | | | | | | | 24 | 24 | | | | | | | | | 24 | | | | | | | | 24 | 24 | |
| August..... | | | | | | | | | | | | | 26 | 36 | 10 | | | | | | | | 26 | 36 | 10 | | | | | | 26 | 36 | |
| September..... | | | | | | | | | | | | | 14 | 14 | 3 | | | | | | | | 14 | 14 | 3 | | | | | | 14 | 14 | |
| October..... | | | | | | | | | | | | | 6 | 7 | | | | | | | | | 7 | 7 | | | | | | | 6 | 7 | |
| November..... | 3 | 7 | 11 | 5 | 1 | | | | | | | 38 | | 550 | 61 | 154 | 127 | 20 | 13 | 19 | 156 | | 550 | 71 | 115 | 138 | 84 | 67 | 37 | 1 | 550 | | |
| December..... | 7 | 6 | 136 | 1 | 5 | | | | | | | 63 | 5 | 1,166 | 109 | 287 | 254 | 48 | 43 | 60 | 365 | | 1,166 | 126 | 334 | 313 | 219 | 67 | 39 | 63 | 5 | 1,166 | |
| 1904. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| January..... | | | | 4 | | | | | | | | 23 | 1 | 535 | 39 | 120 | 107 | 23 | 78 | 24 | 144 | | 535 | 133 | 146 | 110 | 76 | 41 | 5 | 23 | 1 | 535 | |
| February..... | 4 | 2 | 17 | 2 | 1 | 2 | | | 3 | | | 82 | 43 | 1,117 | 205 | 260 | 235 | 29 | 76 | 23 | 289 | | 1,117 | 134 | 277 | 259 | 204 | 80 | 38 | 82 | 43 | 1,117 | |
| March..... | 230 | | 23 | 17 | 1 | | | | | | | 92 | 6 | 2,199 | 725 | 845 | 291 | 22 | 14 | 31 | 271 | | 2,199 | 100 | 356 | 399 | 853 | 329 | 64 | 92 | 6 | 2,199 | |
| April..... | 210 | | 3 | 6 | 1 | | | | | | 4 | 114 | 7 | 3,153 | 986 | 1,337 | 288 | 27 | 146 | 38 | 331 | | 3,153 | 207 | 629 | 492 | 1,294 | 335 | 75 | 114 | 7 | 3,153 | |
| May..... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| June..... | | | | | | | | | | | | 4 | 36 | 40 | | | | | | | | 40 | 40 | | | | | | | 4 | 36 | 40 | |
| Totals..... | 18 | 55 | 194 | 31 | 9 | 2 | 5 | 9 | 1 | 4 | 424 | 158 | 8,841 | 2,125 | 3,013 | 1,302 | 169 | 370 | 195 | 1,667 | | 8,841 | 784 | 1,857 | 1,711 | 2,730 | 919 | 258 | 424 | 158 | 8,841 | | |

J. V. LANTALUM,
Dominion Government Immigration Agent.

Sr. JOHN, N. B., June 30, 1904.

4-5 EDWARD VII., A. 1905

STATEMENT D.—Showing Monthly Arrivals of Steerage Passengers for United States.

| Months. | SEXES. | | | Total. | NATIONALITIES. | | | | | | | | | | | | | | | | | | | | Totals. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | Male. | Female. | Children. | | Austrian. | Galician. | Hungarian. | Belgian. | Dutch. | French. | German. | Prussian. | English. | Welsh. | Scotch. | Irish. | West Indian. | Greek. | Italian. | Poles. | Russian. | Roumanian. | Russian. | Finns. | | Spanish. | Swiss. | Danes. | Swedes. | Norwegians. | Armenians. | U.S. Citizens. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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J. V. LANTALUM,
Dominion Government Immigration Agent.

St. JOHN, N. B., June 30, 1904.

SESSIONAL PAPER No. 25

STATEMENT F.—Showing Sexes of the different Nationalities destined for the United States.

| Nationalities. | SEXES | | | Total. |
|------------------------------|-------|---------|-----------|--------|
| | Male. | Female. | Children. | |
| Austrian | 48 | 15 | 18 | 81 |
| Galician | 4 | 3 | 3 | 10 |
| Hungarian | 17 | 21 | 15 | 53 |
| Belgian | 8 | | | 8 |
| Dutch | 5 | 1 | 5 | 11 |
| French | 1 | 2 | | 3 |
| German | 114 | 67 | 83 | 264 |
| Prussian | 3 | 4 | 1 | 8 |
| English | 42 | 28 | 41 | 111 |
| Welsh | 2 | | | 2 |
| Scotch | 3 | 1 | 4 | 8 |
| Irish | 5 | 2 | 2 | 9 |
| West Indian | 17 | 2 | | 19 |
| Greek | 6 | | | 6 |
| Italian | 43 | 2 | 1 | 46 |
| Poles | 40 | 15 | 7 | 62 |
| Russian | | 1 | 1 | 2 |
| Roumanian | 24 | 38 | 37 | 99 |
| Russian | 1,048 | 322 | 343 | 1,713 |
| Finns | 67 | 49 | 31 | 147 |
| Spanish | 1 | | | 1 |
| Swiss | 3 | | | 3 |
| Danes | 70 | 28 | 10 | 108 |
| Swedes | 92 | 62 | 43 | 197 |
| Norwegian | 98 | 24 | 17 | 139 |
| Armenian | 27 | 19 | 13 | 59 |
| United States Citizens | 9 | 2 | 2 | 13 |
| Totals | 1,797 | 708 | 677 | 3,182 |

JAMES V. LANTALUM,
Dominion Government Immigration Agent.

ST. JOHN, N.B., June 30, 1904.

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STATEMENT E.—Showing Sexes, Occupations and Destinations of the Different Nationalities remaining in Canada.

| Nationalities. | SEXES. | | OCCUPATIONS. | | | | | | | | DESTINATIONS. | | | | | | | Totals. | | | |
|---------------------|--------|---------|--------------|---------|-----------------|------------|------------|---------|---------|------------|-----------------|---------|------------------|---------|----------|-----------|-------------------------|---------|-------------------|---------------------|-----------|
| | Male. | Female. | Children. | Totals. | Agriculturists. | Labourers. | Mechanics. | Clerks. | Miners. | Domestics. | Not Classified. | Totals. | Lower Provinces. | Quebec. | Ontario. | Manitoba. | North-west Territories. | | British Columbia. | Returned Canadians. | Tourists. |
| | | | | | | | | | | | | | | | | | | | | | |
| Australia..... | 8 | | | 8 | | 1 | 1 | 1 | | 5 | 1 | 8 | | 2 | | 1 | | | | | |
| Austrian..... | 128 | 25 | 18 | 171 | 11 | 114 | 18 | 2 | | | 21 | 171 | 11 | 31 | 23 | 76 | 24 | 6 | | | 171 |
| Hungarian..... | 6 | 3 | 4 | 13 | | 7 | 2 | | | | 4 | 13 | | 2 | | | | | | | 13 |
| Bohemian..... | 4 | 2 | 2 | 8 | 2 | 1 | 1 | | | | 4 | 8 | | | | 4 | | | | | 8 |
| Buckowinian..... | 122 | 18 | 9 | 149 | 16 | 117 | | | | 4 | 12 | 149 | | 24 | 7 | 98 | 20 | | | | 149 |
| Galician..... | 372 | 84 | 71 | 527 | 73 | 398 | 6 | 2 | 9 | 14 | 25 | 527 | 15 | 34 | 18 | 400 | 59 | 1 | | | 527 |
| Hungarian..... | 42 | 19 | 34 | 95 | 46 | 36 | 3 | 1 | 1 | | 8 | 95 | 2 | 10 | 2 | 7 | 74 | | | | 95 |
| Slovak..... | 2 | | | 2 | | 2 | | | | | | 2 | | | | 2 | | | | | 2 |
| Belgian..... | 206 | 55 | 55 | 316 | 64 | 73 | 12 | | 132 | 5 | 30 | 316 | 117 | 39 | 2 | 92 | 54 | 12 | | | 316 |
| Dutch..... | 14 | 2 | 4 | 20 | 4 | 14 | | 1 | | | 1 | 20 | | | | 2 | | | | | 20 |
| French..... | 40 | 27 | 9 | 76 | 15 | 4 | 9 | 4 | 7 | 2 | 30 | 76 | 11 | 36 | 5 | 15 | 9 | | | | 76 |
| German..... | 104 | 39 | 31 | 174 | 35 | 57 | 26 | 4 | 4 | 2 | 46 | 174 | 41 | 21 | 13 | 59 | 26 | 14 | | | 174 |
| English..... | 2,021 | 423 | 387 | 2,831 | 1,351 | 228 | 628 | 98 | 40 | 56 | 430 | 2,831 | 198 | 205 | 925 | 1,020 | 380 | 103 | | | 2,831 |
| Welsh..... | 27 | 6 | 8 | 36 | 11 | 9 | | | | | 6 | 36 | | 1 | 10 | 15 | | | | | 36 |
| Scottish..... | 239 | 61 | 44 | 404 | 123 | 17 | 150 | 18 | 15 | 13 | 68 | 404 | 31 | 50 | 131 | 117 | 40 | 35 | | | 404 |
| Irish..... | 164 | 22 | 24 | 210 | 115 | 23 | 34 | 13 | 3 | 5 | 17 | 210 | 10 | 12 | 75 | 102 | 7 | 4 | | | 210 |
| West Indian..... | 10 | 3 | | 13 | | 10 | | | | | 3 | 13 | | | | | | | | | 13 |
| Jamaican..... | 1 | 1 | | 2 | | 2 | | | | | | 2 | | | | | | | | | 2 |
| Greek..... | 57 | 1 | 2 | 60 | 7 | 47 | 1 | | | | 5 | 60 | 1 | 16 | 41 | 2 | | | | | 60 |
| Russian Hebrew..... | 13 | 2 | 4 | 19 | | 5 | 9 | 1 | | | 4 | 19 | 2 | 14 | 3 | | | | | | 19 |
| German..... | 2 | | | | 1 | | | | | | | 2 | | 1 | | | | | | | 2 |
| Italian..... | 1,190 | 13 | 13 | 1,216 | 48 | 1,066 | 5 | 1 | 148 | 1 | 7 | 1,216 | 155 | 725 | 180 | 97 | 3 | 56 | | | 1,216 |
| New Zealand..... | 1 | | | | 2 | 2 | | | | | | 2 | | | | 2 | | | | | 2 |
| Polish..... | 89 | 12 | 12 | 113 | 7 | 79 | 14 | | | 2 | 11 | 113 | 10 | 16 | 7 | 58 | 20 | 2 | | | 113 |
| Austrian..... | 4 | | | 4 | | 4 | | | | | | 4 | | | | | | | | | 4 |
| German..... | 2 | | | 2 | | 2 | | | | | | 2 | | 2 | | | | | | | 2 |
| Russian..... | 65 | 12 | 19 | 96 | 9 | 33 | 25 | 5 | 1 | 1 | 22 | 96 | 14 | 20 | 33 | 19 | 10 | | | | 96 |

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| | | | | | | | | | | | | | | | | | |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-------|-------|-----|-------|-------|-------|-----|-------|
| Roumanian..... | 221 | 155 | 91 | 467 | 3 | 203 | 98 | 3 | 40 | 120 | 467 | 6 | 368 | 51 | 32 | 10 | 467 |
| Russian..... | 521 | 173 | 249 | 943 | 141 | 393 | 219 | 7 | 18 | 165 | 943 | 99 | 200 | 107 | 427 | 109 | 943 |
| Finn..... | 28 | 18 | 8 | 54 | 22 | 22 | 4 | 1 | 9 | 19 | 54 | 4 | 2 | 35 | 5 | 2 | 54 |
| Spanish..... | 2 | 1 | 1 | 2 | 18 | 6 | 1 | 3 | 1 | 1 | 2 | 2 | 3 | 1 | 1 | 1 | 2 |
| Swiss..... | 16 | 11 | 1 | 18 | 14 | 23 | 5 | 2 | 5 | 2 | 55 | 28 | 3 | 3 | 4 | 6 | 18 |
| Danes..... | 42 | 11 | 2 | 55 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 3 | 3 | 5 | 7 | 12 | 55 |
| Iceland..... | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sweden..... | 55 | 23 | 16 | 94 | 11 | 47 | 9 | 1 | 12 | 13 | 94 | 3 | 8 | 6 | 52 | 20 | 94 |
| Norwegian..... | 27 | 2 | 2 | 31 | 8 | 16 | 2 | 2 | 3 | 3 | 31 | 1 | 2 | 15 | 4 | 7 | 31 |
| Armenian..... | 9 | 1 | 1 | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 2 | 2 | 9 | 1 | 1 | 9 |
| Egyptian..... | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 |
| Syrian..... | 3 | 2 | 2 | 5 | 1 | 3 | 1 | 1 | 2 | 2 | 5 | 4 | 2 | 3 | 3 | 3 | 5 |
| Arabian..... | 6 | 1 | 2 | 9 | 1 | 6 | 1 | 1 | 2 | 2 | 9 | 4 | 2 | 2 | 1 | 1 | 9 |
| U. S. Citizens..... | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 4 | 4 | 1 | 1 | 1 | 3 | 4 |
| Flemish..... | 303 | 71 | 50 | 494 | 4 | 2 | 2 | 1 | 424 | 424 | 424 | 4 | 4 | 4 | 1 | 3 | 424 |
| Returning Canadians..... | 114 | 23 | 21 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 |
| Tourists..... | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 158 |
| Totals..... | 6,342 | 1,312 | 1,187 | 8,841 | 2,125 | 3,013 | 1,302 | 169 | 370 | 1,667 | 8,841 | 784 | 1,857 | 1,711 | 2,730 | 919 | 8,841 |

JAMES V. LANTALUM,
Dominion Government Immigration Agent.

St. John, N.B., June 30, 1904.

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No. 2.

REPORT OF THE QUEBEC AGENT.

(P. Doyle.)

QUEBEC, June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit my report for the year ending June 30, 1904, with tables giving the numbers of immigrants brought to this port by each line of steamers, their nationalities, trade and callings, general destinations, &c.

Your obedient servant,

P. DOYLE,

Dominion Government Immigration Agent.

The arrivals for the year, compared with those for the same period in 1903, were as follows:—

| | 1903. | | 1904. | | Increase. | Decrease. |
|------------------|--------|----------------|--------|----------------|-----------|-----------|
| | Cabin. | Steer- age. | Cabin. | Steer- age. | | |
| England..... | 4,414 | 49,421 | 4,071 | 47,768 | ..... | 1,996 |
| Ireland..... | 4 | 170 | ..... | ..... | ..... | 174 |
| Scotland..... | 173 | 3,942 | 251 | 5,537 | 1,673 | ..... |
| Germany..... | ..... | ..... | ..... | 1,693 | 1,693 | ..... |
| France..... | ..... | ..... | 34 | 761 | 795 | ..... |
| Belgium..... | ..... | ..... | ..... | 2,331 | 2,331 | ..... |
| | 4,591 | 53,533 | 4,356 | 58,090 | 6,492 | 2,170 |
| | | 4,591 | | 4,356 | 21,70 | |
| Grand Total..... | | 58,124 | | 62,446 | 4,322 | |

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The number of cabin and steerage by each line was as follows :—

| | Cabin. | Steerage. | Total. |
|---------------------------------------|--------|-----------|--------|
| <i>Allan Line.</i> | | | |
| Weekly steamers from Liverpool | 2,421 | 20,993 | 23,414 |
| " " Glasgow | 251 | 5,537 | 5,788 |
| <i>Dominion Line.</i> | | | |
| Weekly steamers from Liverpool | 2,672 | 26,530 | 29,202 |
| <i>C. P. R. Atlantic SS. Service.</i> | | | |
| Weekly steamers from Liverpool | 669 | 15,572 | 16,241 |
| " " Avonmouth | 15 | 156 | 171 |
| " " Antwerp | | 2,331 | 2,331 |
| " " Hamburg | | 1,693 | 1,693 |
| <i>Franco-Canadienne Line.</i> | | | |
| Steamer from Bordeaux | 684 | 19,752 | 20,436 |
| Steamer from Bordeaux | 29 | 449 | 478 |
| <i>Canadian Lines Limited.</i> | | | |
| Steamers from Havre | 5 | 312 | 317 |
| | 4,356 | 58,090 | 62,446 |

TABLE showing the number of Immigrants landed at Quebec, assisted to emigrate by various Societies during the Year ending June 30, 1904.

| By whom sent out. | ADULTS. | | CHIL-DREN. | | Infants. | Total. | Destinations. |
|---|---------|---------|------------|---------|----------|--------|---|
| | Male. | Female. | Male. | Female. | | | |
| Dr. Barnardo, London | | | 262 | 241 | .... | 503 | Ontario and Manitoba. |
| United British Women's Emigration Association, London, Hon. Mrs. Joyce | 28 | 202 | 8 | 2 | 4 | 244 | General. |
| The Catholic Emigration Association, 105 Shaw St., Liverpool | | | 112 | 53 | ... | 165 | Montreal. |
| The Canadian Catholic Emigration Society, 5 Westmoreland Bridge, London | | | 98 | 23 | .... | 121 | Ottawa. |
| Home of Industry, Bethnel Green Road, London, Mr. Merry | | | 99 | 21 | .... | 120 | Stratford, Ont. |
| Church of England, Waifs and Strays Association, London | | | 35 | 27 | .... | 62 | Sherbrooke, P.Q., and Niagara on The Lake, Ont. |
| Bristol Emigration Society | | | 47 | 14 | .... | 61 | St. John, N.B. |
| Manchester and Salford Refuges and Homes, Manchester | | | | 25 | .... | 25 | Belleville, Ont. |
| Children's Aid Society, 32 Charing Cross, London | | | 21 |  | .... | 21 | Winnipeg. |
| The Sheltering Homes, Myrtle St., Liverpool, Mrs. Birt | | | 15 | 4 | .... | 19 | Knowlton, P.Q. |
| The Self Help Emigration Society, London | | | 14 |  | .... | 14 | Montreal. |
| East End Emigration Fund, Newmarket St., London | | | 11 |  | .... | 11 | " |
| Working Boys Home, 9 Great George Square, Liverpool | | | 7 |  | .... | 7 | Lennoxville, P.Q. |
| Children's Home, Bonner Road, London | | | 1 |  | .... | 1 | Montreal. |
| The Philanthropic Society, Farm School, Redhill, Surrey | | | 1 | | | 1 | " |
| Total | 28 | 202 | 731 | 410 | 4 | 1,375 | |

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STATEMENT of the number of passengers arrived at the Port of Quebec, distinguishing the countries from whence they sailed, up to June 30, 1903-1904.

| | 1903. | 1904. |
|-------------------|--------|--------|
| England— | | |
| Liverpool | 53,835 | 51,668 |
| Avonmouth | | 171 |
| Ireland— | | |
| Londonderry | 184 | |
| Scotland— | | |
| Glasgow | 4,105 | 5,788 |
| France— | | |
| Bordeaux | | 478 |
| Havre | | 317 |
| Belgium— | | |
| Antwerp | | 2,331 |
| Germany— | | |
| Hamburg | | 1,693 |
| | 58,124 | 62,446 |

THE nationalities of the Cabin passengers brought out by each line were as follows :—

| | Armenian. | Belgian. | Dutch. | French. | German. | Greek. | GREAT BRITAIN. | | | | Swedish. | United States Citizens. | Returned Canadians. | Tourists. | Total. |
|---------------------------------------|-----------|----------|--------|---------|---------|--------|----------------|--------|---------|--------|----------|----------------------------|------------------------|-----------|--------|
| | | | | | | | English. | Welsh. | Scotch. | Irish. | | | | | |
| <i>Allan Line.</i> | | | | | | | | | | | | | | | |
| Weekly, Liverpool | | | | 14 | 3 | ..... | 1923 | 1 | 32 | 17 | 2 | ..... | 391 | 38 | 2421 |
| " Glasgow | | | | 2 | ..... | ..... | 4 | ... | 186 | ..... | ..... | 3 | 51 | 5 | 251 |
| | | | | 14 | 5 | ..... | 1927 | 1 | 218 | 17 | 2 | 3 | 442 | 43 | 2672 |
| <i>Dominion Line.</i> | | | | | | | | | | | | | | | |
| Weekly, Liverpool | 8 | 1 | 1 | 9 | 4 | ..... | 341 | ... | 27 | 13 | .... | 33 | 257 | 272 | 966 |
| <i>C. P. R. Atlantic SS. Service.</i> | | | | | | | | | | | | | | | |
| Weekly, Liverpool | | 1 | 2 | 2 | ..... | ..... | 302 | 1 | 30 | 15 | ..... | 36 | 277 | 3 | 669 |
| " Avonmouth ..... |  |  |  |  | ..... | ..... | 13 | ..... |  |  | ..... |  | 1 | 1 | 15 |
| | | 1 | 2 | 2 | ..... | ..... | 315 | 1 | 30 | 15 | ..... | 36 | 278 | 4 | 684 |
| <i>Franco-Canadienne Line.</i> | | | | | | | | | | | | | | | |
| Steamer from Bordeaux..... | | | | 29 | | | | | | | | | | | 29 |
| <i>Canadian Lines Limited.</i> | | | | | | | | | | | | | | | |
| Steamers from Havre..... | | | | 4 | | 1 | | | | | | | | | 5 |
| Totals..... | 8 | 2 | 3 | 58 | 9 | 1 | 2583 | 2 | 275 | 45 | 2 | 72 | 977 | 319 | 4356 |

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CABIN PASSENGERS.

| Canada. | Male. | Female. | Children. | Total. | United States. | Male. | Female. | Children. | Total. |
|-----------------------------|-------|---------|-----------|--------|-----------------------------|-------|---------|-----------|--------|
| Armenian | 3 | 4 | 1 | 8 | Armenian | | | | |
| Belgian | 2 | | | 2 | Belgian | | | | |
| Dutch | 2 | 1 | | 3 | Dutch | | | | |
| French | 35 | 16 | 7 | 58 | French | | | | |
| German | 5 | 4 | | 9 | German | | | | |
| Greek | 1 | | | 1 | Greek | | | | |
| Great Britain—English | 1,378 | 1,016 | 178 | 2,572 | Great Britain—English | 7 | 3 | 1 | 11 |
| Welsh | 2 | | | 2 | Welsh | | | | |
| Scotch | 139 | 110 | 24 | 273 | Scotch | 1 | 1 | | 2 |
| Irish | 21 | 23 | 1 | 45 | Irish | | | | |
| Swedes | 1 | 1 | | 2 | Swedes | | | | |
| Returned Canadians | 413 | 468 | 96 | 977 | Returned Canadians | 34 | 36 | 2 | 72 |
| Tourists | 91 | 41 | 2 | 134 | Tourists | 136 | 46 | 3 | 185 |
| Totals | 2,093 | 1,684 | 309 | 4,086 | Totals | 178 | 86 | 6 | 270 |

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The Nationalities of the Steerage Passengers

| | South African. | Australian. | Austrian. | Bohemian. | Bukowinian. | Croatian. | Galician. | Hungarian. | Slovak. | Belgian. | Bulgarian. | Brazilian. | Dutch. | French. | German. | GREAT BRITAIN. | | | | | |
|-------------------------------------|----------------|-------------|-----------|-----------|-------------|-----------|-----------|------------|---------|----------|------------|------------|--------|---------|---------|----------------|--------|---------|--------|--------|-----------|
| | | | | | | | | | | | | | | | | English. | Welsh. | Scotch. | Irish. | Greek. | Romanian. |
| <i>Allan Line.</i> | | | | | | | | | | | | | | | | | | | | | |
| Weekly, Liverpool..... | 12 | 16 | 26 | 1 | 2 | | 1 | 4 | | 94 | 2 | 18 | 150 | 219 | 11,809 | 321 | 700 | 1,511 | 12 | 41 | |
| " Glasgow..... | 1 | 6 | 1 | | | | 2 | | | | | 2 | 22 | 8 | 247 | | 4,583 | 164 | | | |
| | 13 | 22 | 27 | 1 | 2 | | 3 | 4 | | 94 | 2 | 20 | 172 | 227 | 12,056 | 321 | 5,283 | 1,675 | 12 | 41 | |
| <i>Dominion Line.</i> | | | | | | | | | | | | | | | | | | | | | |
| Weekly, Liverpool..... | | 7 | 8 | 1 | 34 | | 99 | 15 | 3 | 57 | | 58 | 443 | 284 | 6,604 | 42 | 309 | 208 | 21 | 184 | |
| <i>C.P.R. Atlantic SS. Service.</i> | | | | | | | | | | | | | | | | | | | | | |
| Weekly, Liverpool..... | 1 | 8 | 53 | 27 | 162 | | 225 | 132 | 24 | 57 | | 2 | 1 | 86 | 529 | 4,540 | 80 | 944 | 383 | 25 | 390 |
| " Avonmouth..... | | | | | | | | | | | | | | | 1 | 108 | 3 | 1 | 2 | | |
| " Antwerp..... | | | 30 | 5 | 103 | 18 | 806 | 34 | 1 | 106 | | | 1 | 6 | 356 | | | | | 7 | 2 |
| " Hamburg..... | | | | | 289 | | 1,171 | 4 | | | | | | | 212 | | | | | | |
| | 1 | 8 | 83 | 32 | 554 | 18 | 2,202 | 170 | 25 | 163 | | 2 | 2 | 92 | 1,098 | 4,648 | 83 | 945 | 385 | 32 | 392 |
| <i>Franco-Canadienne Line.</i> | | | | | | | | | | | | | | | | | | | | | |
| Bordeaux..... | | | | | | | | | | | | | | 148 | | | | | | 16 | |
| <i>Canadian Lines Limited.</i> | | | | | | | | | | | | | | | | | | | | | |
| Havre..... | | | | | | | | | | | | | | 37 | | | | | | 2 | 3 |
| Totals..... | 14 | 37 | 118 | 34 | 590 | 18 | 2,304 | 189 | 28 | 314 | 2 | 2 | 81 | 892 | 1,609 | 23,308 | 446 | 6,537 | 2,268 | 83 | 620 |

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brought out by each line were as follows :—

| HEBREW. | | | | Italian. | New Zealand. | PO-LISH. | | Persian. | Roumanian. | RUSSIAN | | Spanish. | Swiss. | Servian. | SCANDINAVIAN. | | | | TURKISH. | | | | United States Citiz. | Ret. Canadians. | Tourists. | Total. | |
|------------------------|----------------------|----------------------|---------------------|------------------------|---------------------|---------------------|---------------------|----------------------|-----------------|-----------------|----------------------|----------------|------------|-----------|----------------|------------|----------|------------|----------|----------------|---------------|------------|----------------------|-----------------|---------------------------------|--------|----------|
| Russian. | Polish. | Austrian. | German. | | | Pole (N. E. S) | Austrian. | | | Russ. N. E. S. | Finns. | | | | Danish. | Icelandic. | Swedish. | Norwegian. | Turks. | Armenian. | Egyptian. | Syrian. | | | | | Arabian. |
| 605 26 | 6 3 | 76 9 | 8 6 | 35 8 | 8 1 | 26 33 | 2 .. | 2 .. | 79 10 | 1,206 | 9 1 | 3 3 | 260 .. | 11 218 | 1,338 | 1,718 2 | 9 2 | 5 21 | 1 .. | 3 1 | 110 16 | 453 110 | 87 31 | 20,993 5,537 | | | |
| 631 | 9 | 85 | 14 | 43 | 9 | 59 | 2 | .. | 89 | 1,206 | 1 | 12 | 260 | 229 | 1,338 | 1,720 | 11 | 26 | 1 | 3 | 126 | 563 | 118 | 26,530 | | | |
| 406 | 11 | 68 | 9 | 122 | 1 | 91 | 1 | 6 | 119 | 308 | 8 | 7 | 89 | .. | 734 | 383 | 27 | 1 | .. | 66 | 145 | 68 | 11,047 | | | | |
| 3,188 7 155 8 | .. .. .. .. | 627 .. 23 2 | 69 7 | 355 .. 604 .. | 3 | 97 .. 1 .. | 2 | 17 .. 24 .. | 490 20 .. | 473 | 13 .. | 32 12 .. | 171 140 | 140 .. | 1,137 .. | 777 .. | 6 7 | 15 .. | 1 2 | 37 | 3 | 71 .. | 157 31 7 | 23 3 .. | 15,572 156 2,331 1,693 | | |
| 3,358 | .. | 652 | 76 | 959 | 3 | 98 | 2 | .. | 41 | 510 | 473 | .. | 45 | 12 | 171 | 140 | 1,137 | 777 | 13 | 15 | 1 | 39 | 3 | 71 | 195 | 26 | 19,752 |
| .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 283 | .. | 2 | .. | .. | 449 | | | |
| 198 | .. | .. | .. | 5 | .. | 9 | .. | .. | 5 | .. | 2 | 2 | .. | .. | .. | .. | .. | 5 | 1 | 3 | 36 | .. | 3 | .. | 312 | | |
| 4,593 | 20 | 805 | 99 | 1,129 | 13 | 257 | 2 | 3 | 47 | 723 | 1,987 | 9 | 66 | 14 | 520 | 369 | 3,209 | 2,880 | 29 | 69 | 1 | 327 | 42 | 263 | 908 | 212 | 58,090 |

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PARTICULARS of Immigrants arriving at the Port of

| NAME OF COUNTRY. | TOTAL ARRIVALS. | | | | DECLARED FOR CANADA. | | | |
|-------------------------------------|-----------------|--------|--------------------|--------|----------------------|--------|--------------------|--------|
| | M. | F. | Children under 12. | Total. | M. | F. | Children under 12. | Total. |
| African, South | 6 | 3 | 5 | 14 | 6 | 3 | 5 | 14 |
| Australian | 30 | 4 | 3 | 37 | 30 | 4 | 3 | 37 |
| Austria Hungary :— | | | | | | | | |
| Austrian (N.E.S.) | 54 | 28 | 36 | 118 | 34 | 21 | 31 | 86 |
| Bohemian | 21 | 5 | 8 | 34 | 8 | 1 | 3 | 12 |
| Buckowinian | 364 | 95 | 131 | 590 | 364 | 95 | 131 | 590 |
| Croatian and Slovenian | 18 | | | 18 | 16 | | | 16 |
| Galician | 1,305 | 438 | 561 | 2,304 | 1,290 | 432 | 556 | 2,278 |
| Hungarian (N.E.S.) | 90 | 48 | 51 | 189 | 70 | 19 | 21 | 110 |
| Slovak | 12 | 6 | 10 | 28 | 12 | 6 | 10 | 28 |
| Belgian | 202 | 70 | 42 | 314 | 189 | 62 | 33 | 284 |
| Bulgarian | 2 | | | 2 | 7 | | | 2 |
| Brazilian | 1 | 1 | | 2 | 1 | 1 | | 2 |
| Dutch | 61 | 10 | 10 | 81 | 51 | 8 | 10 | 69 |
| French | 542 | 260 | 90 | 892 | 533 | 256 | 90 | 879 |
| German Empire :— | | | | | | | | |
| German (N.E.S.) | 695 | 414 | 500 | 1,609 | 517 | 291 | 378 | 1,186 |
| Great Britain :— | | | | | | | | |
| English | 13,113 | 5,321 | 4,874 | 23,308 | 12,812 | 5,103 | 4,733 | 22,648 |
| Welsh | 279 | 92 | 75 | 446 | 276 | 90 | 74 | 440 |
| Scotch | 3,985 | 1,509 | 1,043 | 6,537 | 3,918 | 1,471 | 1,005 | 6,394 |
| Irish | 1,361 | 643 | 264 | 2,268 | 1,277 | 591 | 244 | 2,112 |
| Greek | 69 | 5 | 9 | 83 | 66 | 5 | 9 | 80 |
| Hebrew :— | | | | | | | | |
| Hebrew (N.E.S.), Roumanian | 276 | 171 | 173 | 620 | 259 | 157 | 169 | 585 |
| Russian | 2,505 | 979 | 1,109 | 4,593 | 990 | 340 | 357 | 1,687 |
| Polish | 12 | 4 | 4 | 20 | 12 | 4 | 4 | 20 |
| Austrian | 445 | 176 | 184 | 805 | 268 | 120 | 126 | 514 |
| German | 47 | 20 | 32 | 99 | 31 | 9 | 11 | 51 |
| Italian | 1,087 | 25 | 17 | 1,129 | 1,005 | 22 | 14 | 1,041 |
| New Zealand | 12 | 1 | | 13 | 12 | 1 | | 13 |
| Polish :— | | | | | | | | |
| Poles (N.E.S.) | 166 | 42 | 49 | 257 | 150 | 32 | 41 | 223 |
| " Austrian | 2 | | | 2 | 2 | | | 2 |
| Persian | 2 | 1 | | 3 | 2 | 1 | | 3 |
| Roumanian :— | | | | | | | | |
| Roumanian (N.E.S.) | 10 | 20 | 17 | 47 | 10 | 19 | 15 | 44 |
| Russian :— | | | | | | | | |
| Russian (N.E.S.) | 294 | 150 | 279 | 723 | 233 | 135 | 258 | 626 |
| Finns | 997 | 566 | 424 | 1,987 | 346 | 138 | 92 | 576 |
| Spanish | 9 | | | 9 | 2 | | | 2 |
| Swiss | 40 | 10 | 16 | 66 | 39 | 10 | 16 | 65 |
| Servian | 3 | 4 | 7 | 14 | 2 | 3 | 2 | 7 |
| Scandinavian :— | | | | | | | | |
| Danish | 292 | 111 | 117 | 520 | 147 | 31 | 38 | 216 |
| Icelandic | 125 | 117 | 127 | 369 | 125 | 117 | 127 | 369 |
| Swedish | 1,438 | 969 | 802 | 3,209 | 653 | 409 | 432 | 1,494 |
| Norwegian | 1,514 | 767 | 599 | 2,880 | 425 | 200 | 193 | 818 |
| Turkish :— | | | | | | | | |
| Turks | 20 | 3 | 6 | 29 | 15 | 2 | 6 | 23 |
| Armenians | 57 | 6 | 6 | 69 | 54 | 3 | 2 | 59 |
| Egyptians | 1 | | | 1 | 1 | | | 1 |
| Syrians | 229 | 57 | 41 | 327 | 157 | 38 | 24 | 219 |
| Arabians | 31 | 6 | 5 | 42 | 31 | 6 | 5 | 42 |
| U. S. A. Citizens | 117 | 98 | 48 | 263 | 12 | 4 | 4 | 20 |
| Total Arrivals at Ocean Ports | 31,941 | 13,255 | 11,774 | 56,970 | 26,455 | 10,260 | 9,272 | 45,987 |
| Returned Canadians | 446 | 294 | 168 | 908 | 446 | 294 | 168 | 908 |
| Tourists | 159 | 39 | 14 | 212 | 157 | 32 | 12 | 201 |
| Totals | 32,546 | 13,588 | 11,956 | 58,090 | 27,058 | 10,586 | 9,452 | 47,096 |

SESSIONAL PAPER No. 25

Quebec, for the year ending June 30, 1904.

| DECLARED FOR U. S. | | | | TRADE OR OCCUPATION OF IMMIGRANTS. | | | | | | | | |
|--------------------|-------|--------------------|--------|------------------------------------|-------|-------|--------------------|-------|-------|------------|-------|-------|
| | | | | Farmers or Farm Labourers Class. | | | General Labourers. | | | Mechanics. | | |
| M. | F. | Children under 12. | Total. | M. | F. | C. | M. | F. | C. | M. | F. | C. |
| | | | | | | | | | | | | |
| | | | | 8 | 2 | 3 | 5 | | | 3 | 2 | |
| | | | | | | | | | | 9 | | |
| 20 | 7 | 5 | 32 | 11 | 1 | 4 | 15 | 2 | 1 | 6 | 3 | 7 |
| 13 | 4 | 5 | 22 | | | | 3 | | | 5 | 1 | 3 |
| | | | | 252 | 84 | 117 | 112 | 3 | 1 | | | |
| 2 | | | 2 | | | | 16 | | | | | |
| 15 | 6 | 5 | 26 | 1,003 | 387 | 508 | 281 | 31 | 34 | 5 | 1 | |
| 20 | 29 | 30 | 79 | 17 | 8 | 4 | 40 | 3 | | 10 | 1 | 1 |
| | | | | 12 | 5 | 9 | | | | | | |
| 13 | 8 | 9 | 30 | 115 | 16 | 9 | 29 | 6 | 1 | 20 | 6 | 2 |
| | | | | 1 | | | 1 | | | | | |
| | | | | | | | 1 | 1 | | | | |
| 10 | 2 | | 12 | 19 | 1 | | 20 | 3 | 3 | 11 | 3 | 5 |
| 9 | 4 | | 13 | 203 | 53 | 58 | 95 | 17 | 14 | 31 | 11 | |
| | | | | | | | | | | | | |
| 178 | 123 | 122 | 423 | 330 | 205 | 311 | 113 | 21 | 20 | 53 | 4 | 1 |
| | | | | | | | | | | | | |
| 301 | 218 | 141 | 660 | 3,375 | 620 | 644 | 3,525 | 534 | 522 | 3,983 | 696 | 679 |
| 3 | 2 | 1 | 6 | 73 | 16 | 16 | 46 | 7 | 4 | 83 | 4 | 3 |
| 67 | 38 | 38 | 143 | 919 | 131 | 134 | 679 | 111 | 95 | 1,703 | 197 | 162 |
| 84 | 52 | 20 | 156 | 443 | 55 | 47 | 383 | 37 | 32 | 263 | 26 | 12 |
| 3 | | | 3 | 2 | | | 57 | 5 | 7 | 3 | | |
| | | | | | | | | | | | | |
| 17 | 14 | 4 | 35 | 9 | 5 | 5 | 170 | 97 | 104 | 77 | 33 | 39 |
| 1,515 | 639 | 752 | 2,906 | 23 | 5 | 12 | 676 | 172 | 180 | 287 | 54 | 41 |
| | | | | | | | 8 | 2 | 2 | 4 | | |
| 177 | 56 | 55 | 291 | 2 | | 4 | 209 | 71 | 61 | 54 | 17 | 23 |
| 16 | 11 | 21 | 48 | | | | 23 | 5 | 9 | 8 | 1 | 1 |
| 82 | 3 | 3 | 88 | 4 | 3 | 1 | 993 | 14 | 11 | 4 | | |
| | | | | 6 | | | 2 | | | 4 | 1 | |
| | | | | | | | | | | | | |
| 16 | 10 | 8 | 34 | 28 | 9 | 24 | 91 | 6 | 7 | 16 | 2 | 1 |
| | | | | | | | 2 | | | | | |
| | | | | | | | 2 | | | | | |
| | 1 | 2 | 3 | 7 | 14 | 9 | 3 | 1 | 3 | | | |
| | | | | | | | | | | | | |
| 61 | 15 | 21 | 97 | 190 | 101 | 206 | 27 | 6 | 7 | 11 | 2 | 7 |
| 651 | 428 | 332 | 1,411 | 34 | 7 | 16 | 294 | 45 | 29 | 17 | 4 | 10 |
| 7 | | | 7 | 1 | | | 1 | | | | | |
| 1 | | | 1 | 7 | 2 | 6 | 26 | 2 | 2 | 3 | 1 | 1 |
| 1 | 1 | 5 | 7 | 1 | 1 | 2 | 1 | | | | | |
| | | | | | | | | | | | | |
| 145 | 80 | 79 | 304 | 37 | 8 | 13 | 79 | 2 | 4 | 29 | 2 | 4 |
| | | | | 123 | 107 | 114 | 1 | | | | | |
| 785 | 560 | 370 | 1,715 | 248 | 134 | 215 | 354 | 55 | 78 | 39 | 12 | 18 |
| 1,089 | 567 | 406 | 2,062 | 119 | 44 | 73 | 243 | 25 | 21 | 57 | 6 | 6 |
| | | | | | | | | | | | | |
| 5 | 1 | | 6 | | | | 14 | 1 | 1 | | | |
| 3 | 3 | 4 | 10 | | | | 50 | 3 | 2 | 4 | | |
| | | | | | | | 1 | | | | | |
| 72 | 19 | 17 | 108 | | | | 155 | 35 | 21 | 2 | | |
| | | | | | | | 3 | | | 28 | 5 | 4 |
| 105 | 94 | 44 | 243 | 2 | | | 9 | | | 1 | | |
| | | | | | | | | | | | | |
| 5,486 | 2,995 | 2,502 | 10,983 | 7,624 | 2,024 | 2,564 | 8,859 | 1,323 | 1,276 | 6,833 | 1,095 | 1,030 |
| | | | | | | | | | | | | |
| 2 | 7 | 2 | 11 | | | | | | | | | |
| | | | | | | | | | | | | |
| 5,488 | 3,002 | 2,504 | 10,994 | 7,624 | 2,024 | 2,564 | 8,859 | 1,323 | 1,276 | 6,833 | 1,095 | 1,030 |

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PARTICULARS of Immigrants arriving at the Port of Quebec, for the year ending June 30, 1904—Continued.

| NAME OF COUNTRY. | TRADE OR OCCUPATION OF IMMIGRANTS—Con. | | | | | | | | | | DESTINATION IN CANADA. | | | | | |
|---------------------------------|--|-----|-----|---------|----|----|------------------|-----------------|-------|--------------------|------------------------|----------|-----------|----------|-------|-------|
| | Clerks, Traders, &c. | | | Miners. | | | Female Servants. | Not Classified. | | Eastern Provinces. | Quebec. | Ontario. | Manitoba. | N. W. T. | B. C. | |
| | M. | F. | C. | M. | F. | C. | | Not Classified. | | | | | | | | |
| | | | | | | | | M. | C. | | | | | | | |
| African, South..... | 5 | | | 1 | | | 1 | 1 | | 5 | | 9 | 3 | 1 | 1 | |
| Australian..... | | | | | | | | 3 | 2 | | 1 | 9 | 13 | 4 | | |
| Austria Hungary :— | | | | | | | | | | | | | | | | |
| Austrian (N.E.S.)..... | | | | | | | | 2 | 10 | 19 | 2 | 37 | 9 | 23 | 6 | |
| Bohemian..... | | | | | | | | | | | | 8 | 2 | | | |
| Buckovinian..... | | | | | | | | 1 | | | | 111 | 15 | 303 | 156 | |
| Croatian and Slovenian..... | | | | | | | | | | | | 16 | 16 | | | |
| Galician..... | | | | 1 | | | 2 | | 11 | 14 | 2 | 281 | 47 | 1,442 | 497 | 9 |
| Hungarian (N.E.S.)..... | | | | 2 | | | 1 | 1 | 6 | 16 | 20 | 28 | 34 | 22 | 5 | 5 |
| Slovak..... | | | | 5 | 2 | | | 9 | 11 | 23 | 18 | 84 | 6 | 154 | 15 | 7 |
| Belgian..... | 9 | | | | | | | | | | | | | | | |
| Bulgarian..... | | | | | | | | | | | | | | | | |
| Brazilian..... | | | | | | | | | | | | | | | | |
| Dutch..... | | | | | | | | | | | | | | | | |
| French..... | 34 | 6 | 2 | 12 | 1 | 1 | 25 | 158 | 143 | 15 | 54 | 20 | 5 | 39 | 4 | 1 |
| German Empire :— | | | | | | | | | | | | 636 | 20 | 142 | 22 | 5 |
| German (N.E.S.)..... | 14 | 1 | 1 | 4 | 1 | 2 | 14 | 3 | 45 | 43 | 28 | 198 | 43 | 604 | 285 | 28 |
| Great Britain :— | | | | | | | | | | | | | | | | |
| English..... | 1,093 | 199 | 184 | 600 | 43 | 47 | 1,213 | 236 | 1,798 | 2,657 | 463 | 5,281 | 7,935 | 5,716 | 2,230 | 1,023 |
| Welsh..... | 28 | 4 | 4 | 40 | 2 | 5 | 21 | 6 | 36 | 42 | 21 | 76 | 119 | 115 | 57 | 52 |
| Scottish..... | 362 | 73 | 49 | 192 | 24 | 51 | 345 | 63 | 590 | 514 | 153 | 1,122 | 2,445 | 1,792 | 605 | 277 |
| Irish..... | 146 | 37 | 22 | 25 | 2 | | 243 | 17 | 191 | 131 | 32 | 506 | 832 | 576 | 118 | 48 |
| Greek..... | 4 | | | | | | | | | 2 | | 78 | 1 | | | |
| Hebrew :— | | | | | | | | | | | | | | | | |
| Hebrew (N.E.S.), Roumanian..... | 1 | | | 2 | | | | | 22 | 21 | 8 | 408 | 72 | 36 | 1 | |
| Russian..... | 1 | | | 1 | 1 | | | 2 | 106 | 124 | 76 | 1,157 | 222 | 224 | 8 | |
| Polish..... | | | | | | | | | | | | 8 | 11 | | | |
| Austrian..... | | | | | | | | | 2 | | | | | | | |
| German..... | | | | | | | | 5 | 27 | 38 | 16 | 393 | 73 | 28 | 2 | |
| Italian..... | | | | | | | | | 3 | 1 | 2 | 39 | 10 | | | |
| New Zealand..... | 2 | 2 | | 2 | | | | | 2 | 2 | 30 | 866 | 115 | 11 | 11 | 8 |
| Polish :— | | | | | | | | | | | 1 | 5 | 3 | 4 | | |
| Poles (N.E.S.)..... | 2 | 1 | 2 | 13 | 1 | | 5 | | 8 | | 20 | 114 | 44 | 36 | | 9 |

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No. 3.

REPORT OF THE MONTREAL AGENT.

(John Hoolahan.)

MONTREAL, June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to present the report of this agency for the fiscal year ending this date. The report embraces:—

(a.) Number of immigrant arrivals at Montreal via the United States ports of New York, Boston and Portland, with nationality, calling and destination.

(b.) Number of immigrant arrivals at Montreal from all points in the United States, with nationality, calling and destination.

(c.) Applications for help.

(d.) Retail prices of food, fuel, &c., in Montreal.

(e.) Retail prices of clothing, &c., in Montreal.

(f.) Average wages and rate for mechanics, labourers and domestic servants in the city and district.

Steerage passengers arriving in Canada from the British isles and the European continent at the ports of Quebec, Halifax, N.S., and St. John, N.B., are reported from these ports. As a general rule the first and second class passengers during the season of St. Lawrence navigation do not debark until they reach Montreal. All immigrant arrivals and departures are carefully checked by the staff, with full information as to sex, age, calling, nationality, name of steamship and final destination, a monthly report of which is submitted to your department. The department is also notified by wire, as also the commissioner at Winnipeg, of the number, nationality, and time of departure of all immigrants bound for western Canada.

| | |
|---|-------------|
| Number of immigrant arrivals at Montreal, intended settlers in Canada, per ocean travel, via ports in the United States, as per statement 'A.' for the year ending June 30, 1904. | 5,316 |
| Total number of immigrant arrivals from the United States by train, including returned Canadians, as per statement 'B.' for the year ending June 30, 1904. | 2,496 |
| | <hr/> 7,812 |
| Arrivals from the United States and per ocean travel via ports in the United States for the corresponding year ending June 30, 1903. | 6,480 |
| | <hr/> |
| Showing an increase during the year just closed of. | 1,332 |

I have issued to immigrants, bound to Manitoba, North-west Territories and British Columbia, during the present year, 724 certificates. The interchanging of certificates for immigrant tickets by the Canadian Pacific Railway Company has proved a most satisfactory arrangement, and of the greatest possible benefit to the immigrants.

SESSIONAL PAPER No. 25

I wish to testify to the fact that the class of immigrants which has come into Canada during the past year passing through Montreal has been a most desirable one. The people themselves have been found free from disease, and self-sustaining, almost without exception, and people who will prove of inestimable value to the country. Under the present rigid system of inspection it is almost impossible for any person to secure admission into Canada who is not free from incurable disease.

Your officials in this district are thoroughly aware that persons suffering from mental or physical disability or aged people, are not desirable additions to the population of Canada. Canada is too young and vigorous to welcome any immigrant who is not self-sustaining, but ready to give a hearty welcome to all such as are, particularly when they come from the British isles, France, northern Europe and the United States.

I have had personal interviews with the executive officers of all the National Benevolent societies of Montreal, as well as with the officials of the different charitable institutions. They all agree in stating that despite the large increase in immigration, there was no increased demand on the funds of the several organizations, and that the new arrivals they came in contact with appeared to be a most desirable class, and a valuable addition to the population of the country.

The repatriation movement of French Canadians from the United States was large during the year. Every effort is being made to see that the wants and comforts of the returned ones are well looked after, and every facility is given them to enable them to settle in the land of their birth. Many went west over the Canadian Pacific Railway, intending to take up farms in our western country.

In the matter of Italian immigration, I would desire to say that during last spring several thousands of these people arrived in Montreal from Italy and the United States, with the expectation of finding work here, or going west in the employ of the Grand Trunk Pacific or the Canadian Pacific Railway companies. Suitable work had not been found, and the immigrants were compelled to remain in Montreal in large numbers for a considerable time before securing employment. The great majority were without means of subsistence. They were men in the prime of life, of the unskilled labouring class, and willing to work could they obtain it. The local Italian Aid Society had done everything in its power for these people, providing food and shelter for them. The society's fund having become exhausted by the extraordinary demand thus made upon it, an appeal was made to the public for temporary assistance, which met with a prompt response.

Immigration to Canada from the older countries is now attracting so much attention that I am visited frequently by special correspondents of European journals, asking for information on the subject, and what prospects of a livelihood could be held out to their countrymen if they should desire to emigrate to Canada. In every instance I have been careful to point out to them that what Canada wants is men who are willing to work and develop the agricultural and mineral resources of the country.

The agency has, during the past year, received correspondence from intending immigrants in the British isles, the continent of Europe and the United States, relative to the general conditions prevailing in Canada, such as the price and quality of farm lands, wages paid to skilled and unskilled labour, climatic conditions, railway and steamship facilities, &c. Every letter has been promptly answered, and in addition, immigration literature has been sent out to my correspondents as far as possible in their own language.

Your obedient servant,

JOHN HOOLAHAN,

Dominion Government Immigration Agent.

4-5 EDWARD VII., A. 1905

STATEMENT A.—Showing the immigrant arrivals and departures at the Montreal agency

| Nationality. | Total Arrivals. | | | | TRADE OR | | | | | | | | |
|--------------|-----------------|----------|-----------|--------|----------|----------|-----------|--------------|----------|-----------|-----------|----------|-----------|
| | Males. | Females. | Children. | Total. | Farmers | | | Gen'l Labr's | | | Mechanics | | |
| | | | | | Males. | Females. | Children. | Males. | Females. | Children. | Males. | Females. | Children. |
| Austrian | 82 | 20 | 24 | 126 | 19 | 10 | 12 | 36 | 1 | 2 | 5 | 2 | 4 |
| Bohemian | 3 | 5 | 2 | 10 | 1 | 3 | | | | | | | |
| Buckowinian | 8 | | | 8 | 6 | | | 2 | | | | | |
| Galician | 167 | 54 | 60 | 281 | 157 | 45 | 60 | 9 | 1 | | | | |
| Hungarian | 247 | 66 | 50 | 363 | 66 | 27 | 40 | 71 | 7 | 1 | | | |
| Slovak | 38 | 4 | 1 | 43 | 1 | 1 | | 21 | | | | | |
| Belgium | 54 | 10 | 13 | 77 | 30 | 4 | 8 | 12 | | | 4 | | |
| Bulgarian | 1 | | 1 | 2 | | | | | | | 1 | | 1 |
| Dutch | 10 | | | 10 | | | | 5 | | | 5 | | |
| French | 111 | 54 | 40 | 205 | 41 | 7 | 21 | 14 | 2 | 3 | 2 | | |
| German-Russ | 178 | 140 | 235 | 553 | 178 | 114 | 235 | | | | | | |
| German | 175 | 81 | 92 | 348 | 148 | 62 | 87 | 15 | 3 | 2 | 12 | 3 | 3 |
| English | 375 | 59 | 123 | 557 | 136 | 16 | 28 | 55 | 4 | 5 | 21 | 4 | 2 |
| Welsh | 7 | 1 | 2 | 10 | 6 | 1 | 2 | 1 | | | | | |
| Scotch | 59 | 7 | 2 | 68 | 48 | 5 | 1 | 6 | | | 3 | | |
| Irish | 20 | 6 | 4 | 30 | 18 | 4 | 4 | 1 | | | 1 | | |
| Hebrew | 79 | 15 | 13 | 107 | 1 | | | 50 | 4 | 6 | 12 | 1 | 4 |
| Italians | 1,856 | 60 | 37 | 1,953 | | | | 1,541 | 22 | 15 | 2 | | |
| Poles | 56 | 18 | 18 | 92 | 32 | 10 | 15 | 23 | 2 | 3 | 1 | | |
| Roumanian | 3 | | | 3 | | | | 3 | | | | | |
| Russian | 15 | 1 | | 16 | 9 | | | 5 | | | 1 | | |
| Finns | 31 | 9 | 5 | 45 | | 1 | 2 | 28 | 3 | 1 | 1 | | |
| Swiss | 10 | 1 | | 11 | 9 | 1 | | | | | 1 | | |
| Danish | 10 | 8 | 3 | 21 | 7 | 2 | 3 | 3 | | | | | |
| Swedish | 106 | 83 | 30 | 219 | 58 | 17 | 28 | 43 | | | 5 | 2 | 1 |
| Norwegian | 47 | 39 | 23 | 109 | 39 | 10 | 19 | 5 | 2 | 4 | 3 | 2 | |
| Syrian | 12 | | | 12 | | | | 12 | | | | | |
| Arab | 3 | | | 3 | | | | 3 | | | | | |
| Greek | 31 | 2 | 1 | 34 | | | | 29 | 1 | | | | |
| Total | 3,794 | 743 | 779 | 5,316 | 1,010 | 340 | 565 | 1,993 | 52 | 42 | 80 | 14 | 15 |

DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1904.

SESSIONAL PAPER No. 25

by ocean travel via Ports in the United States for the fiscal year ending June 30th, 1904.

| OCCUPATION OF IMMIGRANTS. | | | | | | | | | | DESTINATION. | | | | | | | |
|---------------------------|----------|-----------|---------|----------|-----------|----------------|-----------------|----------|-----------|--------------|------------------|---------|----------|-----------|-------------------------|-------------------|--------|
| Clerks, Traders, &c. | | | Miners. | | | Ser- vants. | Not Classified. | | | Total. | Lower Provinces. | Quebec. | Ontario. | Manitoba. | North-west Territories. | British Columbia. | Total. |
| Males. | Females. | Children. | Males. | Females. | Children. | Female. | Males. | Females. | Children. | | | | | | | | |
| | | | 21 | 2 | 6 | 4 | 1 | 1 | | 126 | | 2 | 20 | 40 | 46 | 18 | 126 |
| | | | 2 | 2 | 2 | | | | | 10 | | | | 4 | 2 | 4 | 10 |
| | | | | | | | | | | 8 | | 2 | | 6 | | | 8 |
| | | | 1 | | | 8 | | | | 281 | | 6 | 3 | 224 | 44 | 4 | 281 |
| | | | 110 | 7 | 9 | 25 | | | | 363 | 7 | 6 | 57 | 93 | 89 | 111 | 363 |
| | | | 16 | 1 | 1 | 1 | | | | 43 | | | 18 | 3 | 4 | 18 | 43 |
| | | | 8 | 2 | 1 | 2 | | 2 | 4 | 77 | | 5 | 3 | 52 | 11 | 6 | 77 |
| | | | | | | | | | | 2 | | | | 2 | | | 2 |
| | | | | | | | | | | 10 | | 5 | 5 | | | | 10 |
| 5 | 2 | | 48 | 6 | 13 | 9 | 1 | 28 | 3 | 205 | | 18 | 8 | 50 | 114 | 15 | 205 |
| | | | | | | 26 | | | | 553 | | | 10 | 365 | 173 | 5 | 553 |
| | | | | | | 13 | | | | 348 | | 9 | 17 | 207 | 113 | 2 | 348 |
| 11 | 3 | 10 | 3 | 1 | 2 | 27 | 149 | 4 | 76 | 557 | 3 | 48 | 261 | 157 | 62 | 26 | 557 |
| | | | | | | | | | | 10 | | | 1 | 5 | 4 | | 10 |
| 2 | | | | | | | | 2 | 1 | 68 | | 2 | 4 | 56 | 4 | 2 | 68 |
| | | | | | | 2 | | | | 30 | | | 4 | 21 | 5 | | 30 |
| 16 | 4 | 2 | | | | 4 | | 2 | 1 | 107 | | 49 | 7 | 47 | | 4 | 107 |
| | | | 313 | 16 | 13 | 13 | | 9 | 9 | 1,953 | | 985 | 284 | 137 | 254 | 293 | 1,953 |
| | | | | | | 6 | | | | 92 | | 6 | 8 | 75 | 1 | 2 | 92 |
| | | | | | | | | | | 3 | | 3 | | | | | 3 |
| | | | | | | 1 | | | | 16 | | | | 9 | 1 | | 16 |
| | | | 2 | 1 | 2 | 4 | | | | 45 | | | 12 | 5 | 5 | 23 | 45 |
| | | | | | | | | | | 11 | | | | 4 | 7 | | 11 |
| | | | | | | 4 | | 2 | | 21 | 1 | 2 | 1 | 11 | 4 | 2 | 21 |
| | | | | | | 61 | | 3 | 1 | 219 | | 47 | 29 | 97 | 21 | 25 | 219 |
| | | | | | | 24 | | 1 | | 109 | | 16 | 7 | 63 | 18 | 5 | 109 |
| | | | | | | | | | | 12 | | 3 | | 9 | | | 12 |
| | | | | | | | | | | 3 | | 2 | 1 | | | | 3 |
| 2 | 1 | 1 | | | | | | | | 34 | | 19 | 4 | 8 | | 3 | 34 |
| 36 | 10 | 13 | 524 | 38 | 49 | 234 | 151 | 55 | 95 | 5,316 | 11 | 1,241 | 764 | 1,750 | 982 | 568 | 5,316 |

JOHN HOOLAHAN,

Dominion Government Immigration Agent.

4-5 EDWARD VII., A. 1905

STATEMENT B.—Showing Immigrant Arrivals and Departures of the Montreal

| Nationality. | Total Arrivals. | | | | TRADE OR OCCUPATION | | | | | | | | |
|-------------------------|-----------------|---------|-----------|--------|---------------------|---------|-----------|--------------------|---------|-----------|------------|---------|-----------|
| | | | | | Farmers. | | | General Labourers. | | | Mechanics. | | |
| | Male. | Female. | Children. | Total. | Male. | Female. | Children. | Male. | Female. | Children. | Male. | Female. | Children. |
| Austrian..... | 13 | 4 | 3 | 20 | | | | 6 | | | 7 | 4 | 3 |
| Galician..... | 11 | 4 | 3 | 18 | 6 | 4 | 3 | 5 | | | | | |
| Hungarian..... | 21 | 4 | | 25 | 1 | 1 | | | | | | | |
| Belgian..... | 14 | 3 | 3 | 20 | | | | 3 | | | 5 | 3 | 3 |
| Bulgarian..... | 4 | | | 4 | | | | 4 | | | | | |
| French..... | 3 | | | 3 | 2 | | | 1 | | | | | |
| German..... | 83 | 16 | 26 | 125 | 17 | 10 | 18 | 30 | 1 | 1 | 36 | 5 | 7 |
| English..... | 9 | 2 | 4 | 15 | 4 | 2 | 4 | 3 | | | 2 | | |
| Greek..... | 8 | | | 8 | | | | 8 | | | | | |
| Hebrew..... | 40 | 17 | 20 | 77 | | | | 15 | 1 | 3 | 2 | 2 | |
| Italian..... | 784 | 25 | 27 | 836 | | | | 745 | 22 | 25 | | | |
| Poles..... | 31 | 2 | 1 | 34 | | | | 31 | 2 | 1 | | | |
| Russian..... | 6 | 4 | 3 | 13 | 4 | 3 | 3 | 2 | | | | | |
| Finnish..... | 81 | 3 | | 84 | 1 | | | 76 | 3 | | 2 | | |
| Danish..... | 11 | | | 11 | | | | 8 | | | 3 | | |
| Icelandic..... | 1 | 1 | 3 | 5 | 1 | 1 | 3 | | | | | | |
| Swedish..... | 40 | 11 | 11 | 62 | 4 | 5 | 5 | 19 | 1 | | 16 | 3 | 6 |
| Norwegian..... | 5 | 3 | | 8 | | | | 4 | 2 | | 1 | 1 | |
| Syrian..... | 8 | 3 | 2 | 13 | | | | 7 | | | | | |
| U. S. Citizens..... | 10 | 6 | 6 | 22 | 9 | 6 | 6 | | | | 1 | | |
| Returned Canadians..... | 452 | 255 | 386 | 1,093 | | | | | | | | | |
| Total..... | 1,635 | 363 | 498 | 2,496 | 49 | 32 | 42 | 967 | 32 | 30 | 75 | 18 | 19 |

DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1904.

SESSIONAL PAPER No. 25

Agency from the United States for the Fiscal Year ending June 30, 1904.

| OF IMMIGRANTS. | | | | | | | | | DESTINATION. | | | | | | | |
|---------------------|---------|-----------|---------|---------|------------------|-----------------|-----|-----|--------------|---------|----------|-----------|----------|--------------|-----------------|--------|
| Clerks and Traders. | | | Miners. | | | Not classified. | | | Total. | Quebec. | Ontario. | Manitoba. | N. W. T. | B. Columbia. | Ret. Canadians. | Total. |
| Male. | Female. | Children. | Male. | Female. | Female Servants. | | | | | | | | | | | |
| | | | | | | | | | 20 | 6 | 12 | 1 | 1 | | | 20 |
| | | | | | | | | | 18 | | 3 | 2 | 13 | | | 18 |
| | | | 20 | 2 | 1 | | | | 25 | | | | 10 | 15 | | 25 |
| | | | 6 | | | | | | 20 | 8 | 6 | | | 6 | | 20 |
| | | | | | | | | | 4 | 4 | | | | | | 4 |
| | | | | | | | | | 3 | | | 1 | 2 | | | 3 |
| | | | | | | | | | 125 | 50 | 20 | 37 | 14 | 4 | | 125 |
| | | | | | | | | | 15 | 2 | | 13 | | | | 15 |
| | | | | | | | | | 8 | 7 | | 1 | | | | 8 |
| 23 | 14 | 17 | | | | | | | 77 | 58 | 5 | 10 | 4 | | | 77 |
| | | | 39 | 2 | | 1 | 2 | | 836 | 660 | 47 | 15 | 64 | 50 | | 836 |
| | | | | | | | | | 34 | 2 | 5 | | 3 | 24 | | 34 |
| | | | | | 1 | | | | 13 | | | 13 | | | | 14 |
| | | | 2 | | | | | | 84 | 25 | 54 | 1 | | 4 | | 84 |
| | | | | | | | | | 11 | 11 | | | | | | 11 |
| | | | | | | | | | 5 | | | 5 | | | | 5 |
| | | | 1 | 2 | | | | | 62 | 28 | 11 | 11 | 8 | 4 | | 62 |
| | | | | | | | | | 8 | 6 | | | | 2 | | 8 |
| 1 | 3 | 2 | | | | | | | 13 | 12 | 1 | | | | | 13 |
| | | | | | | | | | 22 | | 1 | 9 | 12 | | | 22 |
| | | | | | | 452 | 255 | 386 | 1,093 | | | | | | 1,093 | 1,093 |
| 24 | 17 | 19 | 68 | 4 | 4 | 452 | 256 | 388 | 2,496 | 879 | 165 | 119 | 131 | 109 | 1,093 | 2,496 |

JOHN HOOLAHAN,

Dominion Government Immigration Agent.

4-5 EDWARD VII., A. 1905

STATEMENT C.—List of Immigrants wanted at the Montreal Agency, for the Fiscal Year ending June 30, 1904.

| Class of Labour. | 1903. | | | | | | 1904. | | | | | | Remarks. | |
|------------------------------|-------|---------|------------|----------|-----------|-----------|----------|-----------|--------|--------|------|-------|----------|--------------------------|
| | July. | August. | September. | October. | November. | December. | January. | February. | March. | April. | May. | June. | | Total. |
| Bakers | | 1 | 2 | | 1 | | | | 1 | | 3 | 2 | 10 | Local supply sufficient. |
| Blacksmiths..... | 1 | | 3 | | 3 | 2 | 1 | | | 1 | | | 11 | " " |
| Carpenters..... | 5 | 4 | 5 | 4 | 1 | 4 | 8 | 2 | | 6 | 5 | 4 | 48 | " " |
| Clerks..... | | | | | | | | | | | | | | No demand. |
| Express drivers..... | 1 | | 3 | | 1 | | | | 2 | 1 | 1 | 2 | 11 | Local supply sufficient. |
| Female general servants..... | 21 | 19 | 24 | 21 | 19 | 20 | 13 | 15 | 17 | 20 | 15 | 21 | 225 | Good demand. |
| " cooks..... | 10 | 9 | 12 | 10 | 7 | 5 | 7 | 4 | 6 | 9 | 6 | 5 | 90 | " " |
| " housemaids..... | 6 | 7 | 15 | 13 | 10 | 8 | 10 | 9 | 5 | 6 | 4 | 3 | 96 | " " |
| " laundresses..... | 2 | 1 | 6 | 3 | 4 | 2 | 4 | 3 | 1 | 3 | 2 | 1 | 32 | " " |
| " waitresses..... | 6 | 4 | 7 | 5 | 5 | 1 | 4 | 2 | 4 | 3 | 4 | | 45 | " " |
| Farm hands..... | 25 | 20 | 19 | 17 | 12 | 10 | 12 | 9 | 15 | 30 | 40 | 45 | 254 | " " |
| Gardeners..... | | | | | | | | | 6 | 5 | 4 | | 15 | Fair demand in season. |
| General labourers..... | 175 | 130 | 125 | 75 | 25 | 10 | 25 | 7 | 10 | 25 | 75 | 110 | 792 | Good demand. |
| Grooms and coachmen..... | | 2 | 1 | | | | 2 | 1 | 1 | 2 | | 1 | 10 | Local supply sufficient. |
| Machinists..... | 4 | 3 | 2 | | | 1 | | | 1 | 1 | 2 | 3 | 17 | " " |
| Miners..... | 9 | 3 | 7 | 6 | 7 | | | | | 9 | 6 | 4 | 51 | Good demand (W. Ont.) |
| Plumbers and tinsmiths..... | | | 1 | | 1 | | 1 | 2 | 1 | | 1 | | 7 | Local supply sufficient. |
| Waiters..... | | 1 | | 2 | 1 | | 1 | 1 | 2 | 1 | | 2 | 11 | No demand. |
| Boys—office..... | | | 3 | | | | | 2 | | | 1 | | 6 | " " |
| " bell..... | 3 | 4 | | | 2 | 3 | | 1 | 2 | 1 | | 1 | 17 | Fair demand. |
| " care of horses..... | 7 | 6 | 7 | 5 | 6 | 3 | 1 | 2 | 5 | 3 | 2 | 3 | 50 | " " |

JOHN HOOLAHAN,
Dominion Government Immigration Agent.

DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1904.

SESSIONAL PAPER No. 25

STATEMENT D.—Showing list of retail prices of ordinary articles of food and fuel required by the working class of Montreal, 1904.

| Provisions. | Prices. | | Provisions. | Prices. | |
|------------------------------|---------|---------|---------------------------|---------|---------|
| | From | To | | From | To |
| | \$ cts. | \$ cts. | | \$ cts. | \$ cts. |
| Bacon per lb..... | 0 12 | 0 18 | Oatmeal, per lb..... | 0 2 | 0 4 |
| Beef "..... | 0 6 | 0 15 | Potatoes, per bush..... | 0 50 | 0 60 |
| Mutton "..... | 0 8 | 0 12 | Mustard, per lb..... | 0 25 | 0 40 |
| Veal "..... | 0 10 | 0 15 | Pepper "..... | 0 20 | 0 40 |
| Pork "..... | 0 10 | 0 12 | Rice "..... | 0 4 | 0 6 |
| Ham "..... | 0 12 | 0 18 | Salt "..... | 0 1 | 0 .. |
| Herring, per doz..... | 0 20 | 0 30 | Sugar, white per lb..... | 0 4 | 0 5 |
| Butter, per lb..... | 0 18 | 0 25 | " brown "..... | 0 3½ | 0 4 |
| Cheese "..... | 0 12 | 0 18 | Coffee, roasted "..... | 0 25 | 0 40 |
| Eggs, per doz..... | 0 15 | 0 25 | Tea, black "..... | 0 15 | 0 40 |
| Milk, per qrt..... | 0 6 | 0 8 | " green "..... | 0 15 | 0 40 |
| Bread, white, 4 lb loaf..... | 0 16 | .. | Soap, laundry "..... | 0 3 | 0 5 |
| " brown 6 "..... | 0 16 | .. | Tobacco "..... | 0 15 | 1 00 |
| Flour, per barrel..... | 4 00 | 5 50 | Coal oil, per gallon..... | 0 20 | 0 25 |
| " Buckwheat per lb.... | 0 2 | 0 4 | Fire wood, per cord..... | 4 00 | 7 50 |
| " Cornmeal "..... | 0 2 | 0 4 | Coal, per ton..... | 6 50 | 7 00 |

JOHN HOOLAHAN,
Dominion Government Immigration Agent.

DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1904.

4-5 EDWARD VII., A. 1905

STATEMENT E.—Showing list of retail prices of ordinary articles of raiment required by the working class at Montreal, 1904.

| Clothing, &c. | Prices. | |
|------------------------------------|---------|---------|
| | From | To |
| | \$ cts | \$ cts. |
| Coats, under, tweed..... | 3 50 | 6 00 |
| " over " | 8 00 | 15 00 |
| Trousers, tweed..... | 2 00 | 5 00 |
| Vests..... | 1 00 | 2 00 |
| Shirts, flannel..... | 0 40 | 0 75 |
| " cotton..... | 0 40 | 0 75 |
| " under, woven..... | 0 35 | 0 75 |
| Drawers, woollen..... | 0 35 | 0 75 |
| Hats, felt..... | 1 00 | 2 50 |
| Socks, worsted..... | 0 15 | 0 40 |
| " cotton..... | 0 10 | 0 25 |
| Blankets..... | 1 50 | 4 00 |
| Flannel per yard..... | 0 20 | 0 40 |
| Sheeting " | 0 10 | 0 15 |
| Cotton, sheeting, per yard..... | 0 7 | 0 15 |
| Canadian cloth " | 0 40 | 0 75 |
| Shoes, men's..... | 1 00 | 2 50 |
| " women's..... | 1 00 | 2 00 |
| Boots, men's..... | 2 00 | 3 50 |
| " women's..... | 1 50 | 2 50 |
| India rubber overshoes, men's..... | 0 75 | 1 75 |
| " " women's..... | 0 60 | 1 50 |

JOHN HOOLAHAN,

Dominion Government Immigration Agent.

DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1904.

SESSIONAL PAPER No. 25

STATEMENT F.—Showing average rate of wages at Montreal, 1904.

| Employment. | Wages. | | Remarks. |
|--|---------|---------|---|
| | From | To | |
| | \$ cts. | \$ cts. | |
| Farm labourers, per month and board. | 10 00 | 20 00 | |
| Female, farm servants per month and board. | 6 00 | 12 00 | |
| " cooks, per month and board. | 12 00 | 20 00 | The average cost of board and lodging for workingmen is from \$3.00 to \$4.00 per week. |
| " domestics, per month and board. | 8 00 | 15 00 | |
| Gardeners, per month and board. | 12 00 | 25 00 | |
| Bricklayers, per day. | 3 00 | 4 00 | |
| Carpenters, per day. | 2 00 | 2 25 | |
| Engine drivers, stationary, per day. | 2 00 | 2 50 | |
| General labourers, per day. | 1 25 | 1 75 | The rent of workingmen's dwellings (three to four rooms) is from \$7.00 to \$10.00 per month. In the suburbs cheaper rent can be had. |
| Laundresses, per day. | 75 | 1 00 | |
| Masons, per day. | 2 50 | 3 50 | |
| Mechanics, per day. | 2 00 | 3 00 | |
| Millhands, per day. | 1 25 | 1 75 | |
| Miners, per day. | 1 50 | 2 00 | |
| Saddlers, per day. | 1 50 | 2 00 | |
| Shipwrights, per day. | 2 00 | 2 50 | |
| Shoemakers, per day. | 1 25 | 2 00 | |
| Tailors, per day. | 1 50 | 2 50 | |
| Plumbers, per day. | 1 50 | 2 50 | |
| Wheelwrights, per day. | 2 00 | 2 50 | |
| Lumbermen, per month and board. | 25 00 | 30 00 | |

JOHN HOOLAHAN,

Dominion Government Immigration Agent.

DOMINION GOVERNMENT IMMIGRATION AGENCY,
MONTREAL, June 30, 1904.

4-5 EDWARD VII., A. 1905

REPORT OF THE ANDREWS HOME.

(Appended to Agent Hoolahan's Report.)

46 BELMONT PARK, MONTREAL, July 13, 1904.

The Dominion Immigration Agent,
Montreal.

SIR,—I have already had the pleasure of forwarding to your department the eighth annual report of the 'Andrews Home,' which shows a marked and satisfactory increase in the work for which the home was established by His Grace the Archbishop in the year 1895.

Our work covers from Halifax to Vancouver, and the home is placed at the disposal of the church in Canada, and has served greatly as a distributing point, as well as a centre for those in the older provinces. The several English and other societies which we work in conjunction with have frequently expressed their gratitude for our assistance and advice.

The 'Andrews Home' is the recognized headquarters of the church for members of the Girls' Friendly Society. Besides placing on farms, and securing young men situations of all descriptions in the city and elsewhere, we have comfortably and safely placed a number of women and girls in the best of situations.

Sixteen hundred and forty newly arrived men and lads and 683 women and children have passed through the home.

We have expended \$6,500 in connection with the institution during the year ending June 30, 1904. We have received in moneys in trust for safe keeping, &c., the sum of \$7,677.27, and we have refunded \$7,204.86, leaving a balance to the credit of depositors of \$472.41.

Bishops, priests and deacons have been guests of the home; the wives of dignitaries, as well as many others travelling either alone or with little children, have appreciated the quiet and safety of the 'Andrews Home.'

We beg in this report to acknowledge the helpful and cheerful services rendered to us by yourself and your staff.

I submit the following particulars :—

| | |
|--|-------|
| Individual visits to the office. | 2,910 |
| Total number visits to office. | 3,958 |
| Newly arrived men and lads. | 1,640 |
| English letters received. | 321 |
| English letters written. | 214 |
| Canadian letters received. | 833 |
| Canadian letters written. | 703 |
| Letters received for immigrants. | 1,865 |
| Situations obtained. | 579 |

WOMEN'S REPORT.

| | |
|---|-------|
| Visits to matron's office. | 2,008 |
| Applications for girls. | 1,181 |
| Girls applying for situations. | 417 |
| Situations obtained for girls. | 334 |
| Newly arrived women. | 390 |
| Newly arrived female children. | 293 |
| Women passed through home. | 784 |
| Total number of visits to both offices. | 5,966 |
| Total number newly arrived. | 2,240 |
| Total number situations obtained. | 914 |

SESSIONAL PAPER No. 25

Many of those who have passed through the home have been en route for Winnipeg and the west, and only stayed the night, continuing their journey by the morning train; to these the home proved a great blessing.

Your obedient servant,

J. FREDERICK RENAUD,

Immigration Chaplain and Secretary.

REPORT OF THE WOMEN'S NATIONAL IMMIGRATION SOCIETY.

(Appended to Agent Hoolahan's Report.)

87 OSBORNE STREET, MONTREAL.

Total number of immigrants received from July 1, 1903, to June 30, 1904, 513.

| | |
|--------------------|-------|
| English.. . . . | 382 |
| Scotch.. . . . | 45 |
| Irish.. . . . | 41 |
| Swedes.. . . . | 32 |
| Norwegians.. . . . | 5 |
| Germans.. . . . | 2 |
| Spanish.. . . . | 2 |
| Danes.. . . . | 1 |
| French.. . . . | 2 |
| American.. . . . | 1 |
| | <hr/> |
| | 513 |

| | |
|----------------------------|-------|
| Church of England.. . . . | 302 |
| Church of Scotland.. . . . | 12 |
| Church of Ireland.. . . . | 24 |
| Roman Catholic.. . . . | 20 |
| Presbyterian.. . . . | 36 |
| Methodists.. . . . | 23 |
| Wesleyans.. . . . | 18 |
| Plymouth Brethren.. . . . | 16 |
| Quakeress.. . . . | 2 |
| Salvation Army.. . . . | 1 |
| Baptists.. . . . | 12 |
| Lutherans.. . . . | 39 |
| | <hr/> |
| | 513 |

4-5 EDWARD VII., A. 1905

No. 4.

REPORT OF THE HALIFAX AGENT.

(F. W. Annand.)

HALIFAX, N.S., July 1, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—I have the honour to submit for your information my report of the arrival of passengers at this agency for the year ending June 30, 1904.

The total arrivals were:—

| | |
|--------------------|--------|
| Cabin.. | 5,004 |
| Steerage.. | 29,214 |
| Total.. | 34,214 |

The general destinations of these were:—

Cabin:

| | |
|-------------------------|-------|
| Canada.. | 4,963 |
| United States.. | 41 |
| | 5,004 |

Steerage:

| | |
|-------------------------|--------|
| Canada.. | 26,916 |
| United States.. | 2,298 |
| | 29,214 |

While they were divided as to sexes as follows:—

Cabin—Canada:

| | |
|--------------------|-------|
| Males.. | 2,528 |
| Females.. | 2,133 |
| Children.. | 302 |
| | 4,963 |

Cabin—United States:

| | |
|--------------------|----|
| Males.. | 21 |
| Females.. | 16 |
| Children.. | 4 |
| | 41 |

SESSIONAL PAPER No. 25

Steerage—Canada :

| | |
|------------------|--------|
| Males.. . . . | 17,262 |
| Females.. . . . | 4,743 |
| Children.. . . . | 4,911 |
| | <hr/> |
| | 26,916 |

Steerage—United States :

| | |
|------------------|-------|
| Males.. . . . | 1,434 |
| Females.. . . . | 510 |
| Children.. . . . | 354 |
| | <hr/> |
| | 2,298 |

This shows a total decrease over arrivals last year of 5,596, or a decrease in steerage of 4,349 and in cabin of 1,347.

The decrease in steerage arrivals was divided as follows:—

| | |
|-----------------------|-------|
| Canada.. . . . | 1,074 |
| United States.. . . . | 3,275 |

The usual statements are herewith attached as follows:—

Statement A.—Monthly arrivals of cabin passengers for Canada.

“ B.— “ “ “ United States.

“ C.— “ steerage “ Canada.

“ D.— “ “ “ United States.

“ E.—Sexes, occupations and destinations, nationalities, Canada.

“ F.—Sexes, nationalities and destinations steerage by different lines.

“ G.—Comparative statement of monthly arrivals for 1902-3-4.

“ H.—Comparative statement of nationalities remaining in Canada.

“ I.—Showing arrivals according to port of departure.

“ J.— “ the number of immigrants landed at Halifax assisted by various societies in Great Britain.

Your obedient servant,

F. W. ANNAND,

Dominion Government Immigration Agent.

SESSIONAL PAPER No. 25

STATEMENT B.—Showing Monthly Arrivals of Cabin Passengers for the United States, and Sexes of Nationality.

| Months. | ENGLAND. | | | | UNITED STATES CITIZENS. | | | | WEST INDIES. | | | | NEWFOUND- LAND. | | | |
|----------------|----------|---------|-----------|--------|----------------------------|---------|-----------|--------|--------------|---------|-----------|--------|--------------------|---------|-----------|--------|
| | Male. | Female. | Children. | Total. | Male. | Female. | Children. | Total. | Male. | Female. | Children. | Total. | Male. | Female. | Children. | Total. |
| 1903. | | | | | | | | | | | | | | | | |
| July..... | | | | | 2 | 3 | | 5 | | | | | | 1 | | 1 |
| August..... | | | | | 1 | | | 1 | | | | | | | | |
| September..... | | | | | 1 | | | 1 | 2 | | | 2 | | | | |
| October..... | | | | | | | | | | | | | 2 | 3 | 2 | 7 |
| November..... | | | | | 1 | | | 1 | | | | | 2 | 3 | 2 | 7 |
| December..... | 2 | | | 2 | | 2 | 1 | 3 | | | | | 5 | 1 | | 6 |
| 1904. | | | | | | | | | | | | | | | | |
| January..... | | | | | | | | | | | | | | 2 | | 2 |
| February..... | | | | | | | | | | | | | 3 | 1 | | 4 |
| March..... | | | | | | | | | | | | | 2 | 3 | 1 | 6 |
| Total..... | 2 | | | 2 | 5 | 5 | 1 | 11 | 2 | | | 2 | 12 | 11 | 3 | 26 |

HALIFAX, June 30, 1904.

F. W. ANNAND,

Dominion Government Immigration Agent.

4-5 EDWARD VII., A. 1905

STATEMENT C.—Showing Monthly Arrivals of Each Nationality of Steerage Passengers for Canada.

| Months. | SEXES. | | | NATIONALITIES. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--------|---------|-----------|----------------|----------|-----------|--------|--------|------------|-------------|-----------|-----------|--------------|-----------|------------|---------|-------------|----------|------------|--------|---------|----------------|---------------|-----------|--------|--------------|----------|----------|--------|---------------|----------|---------|----|
| | Male. | Female. | Children. | Total. | English. | Scottish. | Welsh. | Irish. | S. Africa. | Australian. | Austrian. | Bohemian. | Buckowinian. | Galician. | Hungarian. | Slovak. | Lithuanian. | Belgian. | Bulgarian. | Dutch. | French. | German Empire. | German N.E.S. | Prussian. | Saxon. | West Indies. | Bermuda. | Jamaica. | Greek. | Hebrew N.E.S. | Russian. | Polish. | |
| 1903. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July..... | 510 | 270 | 283 | 1,063 | 88 | 47 | 2 | 3 | 1 | 1 | 4 | 1 | 179 | 383 | 90 | 10 | 10 | 8 | 8 | 9 | 9 | 38 | 7 | 7 | 6 | 1 | 1 | 1 | 1 | 13 | 13 | 3 | |
| August..... | 585 | 200 | 269 | 1,054 | 88 | 37 | 8 | 6 | 1 | 11 | 11 | 7 | 77 | 328 | 62 | 2 | 2 | 8 | 8 | 5 | 5 | 25 | 39 | 25 | 1 | 1 | 1 | 1 | 1 | 15 | 15 | 3 | |
| September..... | 350 | 203 | 238 | 791 | 141 | 139 | 25 | 13 | 6 | 7 | 14 | 46 | 218 | 218 | 92 | 11 | 11 | 2 | 2 | 5 | 5 | 39 | 39 | 39 | 1 | 1 | 1 | 1 | 1 | 66 | 66 | 5 | |
| October..... | 315 | 106 | 158 | 516 | 158 | 139 | 25 | 13 | 6 | 7 | 14 | 46 | 218 | 218 | 92 | 11 | 11 | 2 | 2 | 5 | 5 | 39 | 39 | 39 | 1 | 1 | 1 | 1 | 1 | 66 | 66 | 5 | |
| November..... | 472 | 243 | 275 | 990 | 249 | 61 | 8 | 13 | 13 | 38 | 38 | 60 | 136 | 136 | 93 | 4 | 4 | 3 | 3 | 2 | 2 | 5 | 61 | 18 | 1 | 1 | 1 | 1 | 1 | 6 | 24 | 2 | |
| December..... | 570 | 262 | 253 | 1,085 | 304 | 55 | 1 | 17 | 17 | 2 | 7 | 1 | 31 | 207 | 38 | 3 | 3 | 5 | 5 | 1 | 1 | 10 | 8 | 77 | 1 | 1 | 1 | 1 | 1 | 4 | 84 | 9 | |
| 1904. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| January..... | 504 | 182 | 123 | 809 | 374 | 93 | 7 | 32 | 1 | 1 | 4 | 1 | 3 | 57 | 10 | 3 | 2 | 11 | 4 | 4 | 11 | 2 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 3 | 5 | 42 | 6 |
| February..... | 1,003 | 258 | 257 | 1,518 | 729 | 119 | 12 | 46 | 1 | 2 | 4 | 11 | 8 | 675 | 57 | 10 | 3 | 19 | 19 | 4 | 4 | 14 | 14 | 10 | 10 | 10 | 10 | 10 | 10 | 5 | 3 | 88 | 1 |
| March..... | 3,927 | 768 | 588 | 5,283 | 2,368 | 807 | 33 | 194 | 1 | 5 | 9 | 7 | 125 | 675 | 48 | 3 | 3 | 74 | 74 | 1 | 1 | 47 | 47 | 48 | 48 | 48 | 48 | 48 | 48 | 5 | 3 | 109 | 4 |
| April..... | 6,933 | 1,445 | 1,401 | 9,779 | 4,911 | 1,773 | 83 | 407 | 2 | 7 | 13 | 12 | 133 | 909 | 90 | 2 | 2 | 31 | 31 | 1 | 1 | 269 | 269 | 97 | 97 | 97 | 97 | 97 | 97 | 1 | 1 | 68 | 3 |
| May..... | 1,143 | 392 | 486 | 2,021 | 418 | 336 | 24 | 33 | 2 | 1 | 15 | 7 | 21 | 617 | 4 | 4 | 4 | 23 | 23 | 2 | 2 | 35 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 10 | 1 | 57 | 8 |
| June..... | 950 | 414 | 643 | 2,007 | 227 | 219 | 2 | 12 | 12 | 1 | 8 | 8 | 148 | 1,113 | 1 | 1 | 4 | 8 | 8 | 2 | 2 | 6 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 11 | 24 | 24 | .. |
| Totals..... | 17,262 | 4,743 | 4,911 | 26,916 | 9,967 | 3,086 | 205 | 776 | 7 | 18 | 120 | 61 | 831 | 4,643 | 523 | 43 | 19 | 181 | 10 | 66 | 374 | 366 | 350 | 1 | 7 | 7 | 3 | 30 | 17 | 22 | 590 | 41 | |

SESSIONAL PAPER No. 25

STATEMENT C.—Showing Monthly Arrivals of Each Nationality of Steerage Passengers for Canada—Continued.

| Months. | NATIONALITIES. | | | | | | | | | | | | | | | | | | | | Total. | | | | | | | | | | |
|----------------|----------------|---------|----------|---------------|--------------|--------------|-----------------|---------------|----------------|------------|----------------|-------|------------|-------------|----------|--------|----------|---------|------------|----------|--------|------------|--------|----------|----------|--------|---------|-----------------|---------------------|----------|-------|
| | Austrian. | German. | Italian. | Newfoundland. | New Zealand. | Poles N.E.S. | Poles Austrian. | Poles German. | Poles Russian. | Roumanian. | Russian N.E.S. | Fins. | Doukhobor. | Mennonites. | Spanish. | Swiss. | Servian. | Danish. | Icelandic. | Swedish. | | Norwegian. | Turks. | Armenia. | Assyria. | Syria. | Arabia. | U. S. Citizens. | Returned Canadians. | Tourist. | |
| 1903. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July..... | 1 | 15 | 46 | 1 | 1 | 123 | 2 | 123 | 9 | 17 | 8 | 58 | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 19 | 23 | 1,063 |
| August..... | 1 | 80 | 143 | 1 | 1 | 58 | 1 | 58 | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 23 | 1,054 |
| September..... | 2 | 1 | 58 | 2 | 2 | 7 | 1 | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | 3 | 791 |
| October..... | 9 | 1 | 104 | 1 | 1 | 34 | 25 | 34 | 14 | 17 | 1 | 34 | 14 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 15 | 15 | 1 | 2 | 7 | 516 | 36 | 5 | 990 | | |
| November..... | 2 | 2 | 21 | 2 | 2 | 18 | 9 | 18 | 23 | 1 | 1 | 1 | 23 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 49 | 9 | 9 | 1 | 1 | 1 | 1 | 1 | 32 | 5 | 1,085 |
| December..... | 14 | 8 | 31 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1,085 |
| 1904. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| January..... | 6 | 1 | 4 | 10 | 1 | 12 | 1 | 27 | 37 | 4 | 1 | 27 | 37 | 4 | 1 | 1 | 1 | 1 | 4 | 11 | 15 | 15 | 1 | 6 | 1 | 1 | 1 | 1 | 59 | 1 | 809 |
| February..... | 18 | 1 | 27 | 20 | 1 | 17 | 1 | 12 | 18 | 17 | 3 | 12 | 18 | 4 | 1 | 5 | 1 | 14 | 8 | 28 | 28 | 28 | 3 | 5 | 2 | 2 | 2 | 2 | 186 | 6 | 1,518 |
| March..... | 19 | 31 | 7 | 4 | 1 | 19 | 3 | 19 | 18 | 4 | 1 | 19 | 18 | 1 | 1 | 1 | 1 | 4 | 1 | 33 | 25 | 25 | 4 | 7 | 10 | 10 | 10 | 10 | 312 | 18 | 2,283 |
| April..... | 7 | 39 | 36 | 2 | 10 | 34 | 35 | 34 | 32 | 9 | 16 | 34 | 32 | 1 | 1 | 20 | 20 | 50 | 8 | 138 | 165 | 165 | 4 | 15 | 4 | 4 | 4 | 4 | 366 | 49 | 9,779 |
| May..... | 9 | 15 | 15 | 1 | 1 | 27 | 1 | 27 | 19 | 12 | 1 | 27 | 19 | 1 | 1 | 2 | 2 | 20 | 9 | 29 | 41 | 41 | 1 | 1 | 1 | 1 | 1 | 1 | 55 | 5 | 2,021 |
| June..... | 1 | 27 | 28 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 41 | 32 | 2,007 |
| Totals..... | 87 | 2 | 285 | 519 | 8 | 350 | 101 | 350 | 170 | 4 | 11 | 1 | 34 | 3 | 125 | 26 | 344 | 281 | 6 | 13 | 27 | 106 | 437 | 1 | 1,153 | 165 | 26,916 | | | | |

4-5 EDWARD VII., A. 1905

STATEMENT C.—Showing Monthly Arrivals of Each Nationality of Steerage Passengers for Canada—Concluded.

| Months. | OCCUPATION. | | | | | | | DESTINATION. | | | | | | | | | |
|-----------------|----------------|--------------|------------|---------|---------|------------------|--------------|--------------|------------------|---------|----------|-----------|----------|-------------------|---------------------|----------|--------|
| | Agriculturist. | G. labourer. | Mechanics. | Clerks. | Miners. | Female servants. | Not classed. | Total. | Lower Provinces. | Quebec. | Ontario. | Manitoba. | N. W. T. | British Columbia. | Returned Canadians. | Tourist. | Total. |
| 1903. | | | | | | | | | | | | | | | | | |
| July | 800 | 120 | 36 | 5 | ..... | 8 | 94 | 1,063 | 71 | 107 | 28 | 454 | 351 | 10 | 19 | 23 | 1,063 |
| August | 517 | 374 | 50 | 4 | 10 | 11 | 88 | 1,054 | 396 | 59 | 24 | 351 | 190 | 2 | 9 | 23 | 1,054 |
| September | 332 | 123 | 86 | 43 | 88 | 14 | 105 | 791 | 307 | 63 | 16 | 238 | 147 | 5 | 12 | 3 | 791 |
| October | 2 | 129 | 28 | 13 | 266 | 13 | 65 | 516 | 480 | 3 | 5 | 2 | ..... | ..... | 26 | ..... | 516 |
| November | 333 | 150 | 152 | 73 | 161 | 16 | 105 | 990 | 296 | 99 | 121 | 192 | 228 | 18 | 36 | ..... | 990 |
| December | 352 | 227 | 184 | 66 | 53 | 65 | 138 | 1,085 | 234 | 209 | 152 | 155 | 270 | 28 | 32 | 5 | 1,085 |
| 1904. | | | | | | | | | | | | | | | | | |
| January | 163 | 95 | 222 | 99 | 41 | 52 | 136 | 809 | 102 | 190 | 250 | 123 | 52 | 32 | 59 | 1 | 809 |
| February | 486 | 134 | 328 | 97 | 97 | 49 | 327 | 1,518 | 180 | 278 | 292 | 356 | 135 | 76 | 186 | 6 | 1,518 |
| March | 3,213 | 322 | 885 | 205 | 67 | 187 | 404 | 5,283 | 198 | 459 | 927 | 2,532 | 735 | 82 | 312 | 18 | 5,283 |
| April | 5,442 | 830 | 1,924 | 278 | 299 | 357 | 649 | 9,779 | 571 | 713 | 1,990 | 4,461 | 1,441 | 188 | 366 | 49 | 9,779 |
| May | 1,085 | 134 | 349 | 82 | 193 | 87 | 91 | 2,021 | 378 | 148 | 267 | 846 | 270 | 52 | 55 | 5 | 2,021 |
| June | 1,310 | 105 | 136 | 27 | 143 | 62 | 224 | 2,007 | 433 | 43 | 88 | 1,039 | 321 | 10 | 41 | 32 | 2,007 |
| Totals | 14,035 | 2,743 | 4,481 | 992 | 1,418 | 921 | 2,426 | 26,916 | 3,655 | 2,371 | 4,160 | 10,769 | 4,140 | 503 | 1,153 | 165 | 26,916 |

F. W. ANNAND,
Dominion Government Immigration Agent.

HALIFAX, N.S., June 30, 1904.

SESSIONAL PAPER No. 25

STATEMENT D.—Showing Monthly arrivals of Steerage Passengers for United States.

| Months. | SEXES. | | | NATIONALITIES. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--------|---------|-----------|----------------|----------|---------|--------|--------|-----------|-----------|------------|----------|--------|---------|----------------|---------|--------|-----------------|----------|---------------|--------------|-----------|--------|----------------|------------|-----------|-------|----------|---------|----------|------------|----------|----------------|--------|--------|
| | Male. | Female. | Children. | Total. | English. | Scotch. | Welsh. | Irish. | Austrian. | Galician. | Hungarian. | Belgian. | Dutch. | French. | German Empire. | German. | Greek. | Hebrew Russian. | Italian. | Newfoundland. | New Zealand. | Portugal. | Poles. | Poles Russian. | Roumanian. | Russians. | Finn. | Spanish. | Danish. | Swedish. | Norwegian. | Assyria. | U.S. Citizens. | Swiss. | Total. |
| 1903. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July..... | 141 | 48 | 33 | 222 | .. | .. | .. | .. | 54 | .. | 30 | .. | .. | .. | 13 | .. | .. | .. | .. | 16 | .. | .. | .. | 2 | 3 | 91 | .. | .. | .. | .. | .. | 2 | 9 | 222 | |
| August..... | 111 | 47 | 26 | 184 | .. | .. | .. | .. | 58 | .. | 9 | .. | .. | .. | 24 | .. | .. | 1 | .. | 18 | .. | 3 | .. | .. | .. | 22 | 41 | .. | .. | .. | .. | .. | 8 | 184 | |
| September..... | 68 | 25 | 9 | 102 | 1 | .. | .. | .. | 24 | .. | 19 | .. | .. | .. | 14 | .. | .. | .. | 24 | .. | .. | .. | .. | .. | 15 | .. | .. | .. | .. | .. | .. | 5 | 102 | | |
| October..... | 12 | 17 | 2 | 31 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 30 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 31 | | |
| November..... | 106 | 51 | 36 | 193 | 9 | .. | .. | 2 | 11 | .. | 10 | .. | .. | .. | 3 | .. | .. | .. | 14 | .. | .. | .. | .. | .. | 61 | 15 | .. | 11 | 26 | 27 | 4 | .. | 193 | | |
| December..... | 102 | 61 | 50 | 213 | 26 | 4 | 1 | 1 | 5 | .. | 16 | .. | .. | .. | 13 | .. | 1 | .. | 7 | 6 | .. | .. | .. | 19 | 56 | 10 | 6 | 22 | 20 | .. | .. | 1 | 213 | | |
| 1904. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| January..... | 49 | 19 | 12 | 80 | 11 | 1 | 1 | 1 | 1 | .. | .. | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 3 | 2 | 27 | 5 | 11 | 9 | .. | 2 | .. | 80 | | |
| February..... | 143 | 40 | 42 | 225 | 25 | 2 | 3 | 7 | 7 | .. | 2 | .. | .. | 1 | 7 | .. | .. | .. | 1 | 6 | .. | .. | .. | .. | 28 | 38 | 20 | 41 | 38 | 1 | 5 | .. | 225 | | |
| March..... | 229 | 47 | 31 | 307 | 23 | 4 | 5 | 6 | 6 | .. | .. | .. | 2 | 2 | 19 | 1 | 2 | .. | .. | .. | 1 | .. | .. | .. | 18 | 27 | 31 | 26 | 126 | .. | 14 | .. | 307 | | |
| April..... | 348 | 100 | 79 | 527 | 51 | 16 | 2 | 9 | 3 | .. | 1 | 1 | 1 | 14 | .. | .. | 2 | .. | .. | .. | .. | .. | 1 | .. | 21 | 36 | 26 | 66 | 276 | 3 | .. | 527 | | | |
| May..... | 120 | 53 | 26 | 199 | 10 | 2 | .. | .. | 3 | .. | 1 | .. | .. | 1 | .. | .. | .. | 2 | .. | .. | .. | .. | .. | 16 | 18 | 20 | 41 | 82 | .. | 3 | .. | 199 | | | |
| June..... | 5 | 2 | 8 | 15 | .. | .. | .. | .. | 1 | 13 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 15 | | | |
| Total..... | 1,434 | 510 | 354 | 2,298 | 155 | 28 | 5 | 21 | 170 | 13 | 86 | 5 | 2 | 4 | 59 | 51 | 2 | 5 | 10 | 114 | 1 | 1 | 3 | 3 | 2 | 330 | 212 | 1 | 119 | 233 | 580 | 1 | 49 | 9 | 2,298 |

F. W. ANNAND,
Dominion Government Immigration Agent.

HALIFAX, June 30, 1904.

4-5 EDWARD VII., A. 1905

STATEMENT E.—Showing total arrivals of steerage, Sexes of occupations and destinations of each Nationality remaining in Canada.

| Country. | DECLARED FOR CANADA. | | | AGRICULTURISTS. | | | GEN'L LABOURERS. | | | MECHANICS. | | | CLERKS, TRADERS, ETC. | | | MINERS. | | | Do-MES-TIC. | NOT CLASSED. | | DESTINATIONS. | | | | | | | | | |
|----------------------|----------------------|---------|-----------|-----------------|-------|---------|------------------|-------|---------|------------|-------|---------|-----------------------|-------|---------|-----------|-------|---------|-------------|--------------------|---------|---------------|-----------|------------------------|-----------|------|------|------|-----|----|---|
| | Male. | Female. | Children. | Total. | Male. | Female. | Children. | Male. | Female. | Children. | Male. | Female. | Children. | Male. | Female. | Children. | Male. | Female. | | Eastern Provinces. | Quebec. | Ontario. | Manitoba. | North-w't Territories. | B. Colum. | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| English..... | 6443 | 1682 | 1642 | 9967 | 3689 | 513 | 528 | 635 | 74 | 133 | 1553 | 263 | 308 | 385 | 56 | 48 | 345 | 123 | 184 | 425 | 36 | 228 | 441 | 1340 | 778 | 2397 | 3947 | 1265 | 240 | | |
| Scotch..... | 2633 | 542 | 511 | 3686 | 1144 | 149 | 166 | 171 | 21 | 25 | 872 | 121 | 142 | 148 | 16 | 17 | 292 | 77 | 134 | 118 | 6 | 49 | 27 | 727 | 222 | 824 | 1426 | 356 | 131 | | |
| Welsh..... | 143 | 27 | 35 | 205 | 71 | 11 | 12 | 13 | 1 | 1 | 27 | 2 | 3 | 2 | 2 | 30 | 5 | 13 | 5 | 3 | 7 | 59 | 5 | 52 | 72 | 10 | 7 | | | | |
| Irish..... | 589 | 114 | 73 | 776 | 355 | 30 | 46 | 88 | 5 | 6 | 61 | 7 | 4 | 70 | 5 | 9 | 15 | 5 | 3 | 49 | 13 | 5 | 83 | 64 | 213 | 320 | 80 | 16 | | | |
| S. Africa..... | 6 | 1 | 7 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Australian..... | 17 | 1 | 18 | 8 | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Austrian..... | 61 | 25 | 34 | 120 | 20 | 4 | 8 | 20 | 4 | 8 | 12 | 4 | 7 | 4 | 4 | 5 | 7 | 11 | 4 | 4 | 2 | 2 | 2 | 50 | 17 | 11 | 14 | 27 | 1 | | |
| Bohemian..... | 21 | 19 | 21 | 61 | 13 | 11 | 13 | 3 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 4 | 4 | 8 | 1 | 1 | 1 | 2 | 2 | 9 | 1 | 1 | 35 | 6 | 10 | | |
| Buckovinan..... | 463 | 159 | 205 | 831 | 423 | 143 | 203 | 25 | 1 | 1 | 15 | 2 | 4 | 1 | 1 | 1 | 1 | 1 | 9 | 2 | 20 | 19 | 20 | 19 | 9 | 408 | 375 | 8 | | | |
| Galician..... | 2564 | 909 | 1170 | 4643 | 2296 | 759 | 1136 | 205 | 17 | 21 | 53 | 4 | 6 | 1 | 1 | 10 | 3 | 4 | 114 | 12 | 3 | 159 | 240 | 98 | 3005 | 1133 | 8 | | | | |
| Hungarian..... | 256 | 128 | 139 | 523 | 160 | 105 | 131 | 74 | 5 | 4 | 20 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | 4 | 4 | 2 | 62 | 11 | 5 | 206 | 221 | 18 | | | |
| Slovak..... | 19 | 14 | 10 | 43 | 4 | 2 | 4 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 3 | 2 | 5 | 7 | 2 | 2 | 1 | 6 | 9 | 1 | 3 | 8 | 2 | | | |
| Lithuanian..... | 11 | 5 | 3 | 19 | 1 | 1 | 1 | 4 | 1 | 2 | 3 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 2 | 1 | 72 | 16 | 3 | 86 | 2 | 2 | 2 | | | |
| Belgian..... | 91 | 45 | 45 | 181 | 49 | 13 | 17 | 12 | 4 | 8 | 5 | 2 | 1 | 5 | 2 | 20 | 19 | 18 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Bulgarian..... | 5 | 2 | 3 | 10 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| Dutch..... | 29 | 9 | 28 | 66 | 22 | 9 | 28 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 11 | 4 | 1 | 5 | 17 | 42 | 1 | | | |
| French..... | 247 | 62 | 65 | 374 | 151 | 41 | 64 | 43 | 20 | 2 | 22 | 7 | 1 | 22 | 1 | 2 | 2 | 2 | 2 | 2 | 7 | 11 | 4 | 1 | 50 | 47 | 10 | 114 | 152 | 1 | |
| German Empire..... | 166 | 93 | 107 | 366 | 100 | 54 | 78 | 20 | 2 | 7 | 35 | 11 | 11 | 7 | 1 | 3 | 4 | 7 | 18 | 3 | 3 | 3 | 15 | 7 | 10 | 27 | 44 | 39 | 186 | 70 | 1 |
| German, N. E. S..... | 139 | 84 | 127 | 350 | 90 | 61 | 100 | 14 | 2 | 6 | 30 | 12 | 17 | 3 | 1 | 2 | 1 | 1 | 5 | 3 | 3 | 3 | 15 | 7 | 10 | 208 | 109 | 1 | 1 | | |
| Prussian..... | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Saxon..... | 1 | 1 | 5 | 7 | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| West Indian..... | 4 | 1 | 2 | 7 | 1 | 1 | 1 | 4 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Bermuda..... | 2 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Jamaica..... | 25 | 4 | 1 | 30 | 5 | 1 | 1 | 13 | 1 | 3 | 1 | 1 | 1 | 15 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 13 | 2 | 15 | 3 | 3 | 3 | 3 | | |
| Greek..... | 16 | 1 | 4 | 22 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 13 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 13 | 2 | 13 | 8 | 3 | 3 | | |
| Hebrew, N. E. S..... | 14 | 4 | 4 | 22 | 8 | 26 | 33 | 3 | 3 | 6 | 23 | 47 | 58 | 44 | 16 | 28 | 1 | 1 | 1 | 14 | 1 | 8 | 1 | 2 | 13 | 8 | 75 | 65 | 6 | | |
| Russian..... | 368 | 96 | 126 | 590 | 53 | 8 | 26 | 33 | 3 | 6 | 17 | 5 | 6 | 2 | 1 | 2 | 2 | 2 | 2 | 20 | 1 | 100 | 34 | 518 | 54 | 9 | 17 | 2 | 10 | | |
| " Polish..... | 26 | 7 | 8 | 41 | 2 | 5 | 17 | 5 | 6 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 20 | 1 | 100 | 34 | 518 | 54 | 9 | 17 | 2 | 10 | | |
| " Austrian..... | 46 | 18 | 23 | 87 | 4 | 2 | 3 | 3 | 4 | 7 | 33 | 6 | 9 | 6 | 5 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| " German..... | 9 | 2 | 2 | 13 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Italian..... | 212 | 11 | 12 | 235 | 2 | 1 | 1 | 186 | 4 | 10 | 11 | 3 | 2 | 2 | 1 | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Newfoundland..... | 348 | 131 | 40 | 519 | 6 | 1 | 1 | 282 | 6 | 3 | 4 | 2 | 2 | 1 | 15 | 2 | 2 | 2 | 2 | 20 | 1 | 100 | 34 | 518 | 54 | 9 | 17 | 2 | 10 | | |
| New Zealand..... | 4 | 1 | 3 | 8 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Poles, N. E. S..... | 20 | 8 | 5 | 33 | 4 | 1 | 1 | 8 | 1 | 1 | 8 | 5 | 5 | 1 | 1 | 5 | 5 | 5 | 5 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |

4-5 EDWARD VII., A. 1905

STATEMENT F.—Nationalities of Steerage Passengers brought by each Line.

| Lines. | Nationalities | | | | | | | | | | | | | | | | | | | | | | | | Total. | | | |
|-----------------------|---------------|--------|---------|--------|------------|-------------|-----------|-----------|--------------|-----------|------------|---------|-------------|----------|------------|--------|---------|----------------|----------------|----------|--------|--------------|----------|----------|--------|--------|----------------|------------------|
| | English. | Welsh. | Scotch. | Irish. | S. Africa. | Australian. | Austrian. | Bohemian. | Buckowinian. | Galician. | Hungarian. | Slovak. | Lithuanian. | Belgian. | Bulgarian. | Dutch. | French. | German Empire. | German, N.E.S. | Russian. | Saxon. | West Indian. | Bermuda. | Jamaica. | | Greek. | Hebrew, N.E.S. | Hebrew, Russian. |
| Allan Line..... | 6,736 | 144 | 3,449 | 613 | 5 | 11 | 33 | 1 | 4 | 22 | 12 | 3 | 10 | 129 | ... | 58 | 107 | 165 | 57 | ... | ... | ... | 1 | ... | 6 | 11 | 270 | |
| Furness-Allan..... | 604 | 11 | 85 | 14 | 2 | ... | 2 | ... | ... | ... | 4 | ... | ... | 12 | ... | ... | 25 | 14 | ... | ... | ... | ... | ... | ... | ... | ... | 18 | |
| Dominion..... | 2,196 | 38 | 123 | 112 | 2 | 1 | 5 | ... | 2 | 27 | 1 | 1 | 1 | 45 | ... | 9 | 55 | 53 | 5 | 1 | ... | ... | ... | ... | 11 | 10 | 114 | |
| Canadian Pacific..... | 570 | 17 | 52 | 55 | ... | 3 | ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | ... | 28 | ... | ... | ... | ... | ... | ... | 1 | 17 | | |
| Hamburg-American..... | ... | ... | ... | ... | ... | 3 | 249 | 60 | 825 | 4,607 | 592 | 39 | 7 | ... | 10 | ... | 9 | 165 | 338 | ... | 7 | ... | ... | ... | ... | 1 | 176 | |
| Other Lines..... | 16 | ... | 5 | 3 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 182 | ... | 1 | ... | ... | 7 | 2 | 30 | 2 | ... | | |
| Totals..... | 10,122 | 210 | 3,714 | 797 | 7 | 18 | 290 | 61 | 831 | 4,656 | 609 | 43 | 19 | 186 | 10 | 68 | 378 | 425 | 401 | 2 | 7 | 7 | 3 | 30 | 19 | 22 | 595 | |

| Lines. | Nationalities | | | | | | | | | | | | | | | | | | | | | | | | Total. | | | | | | | | |
|-----------------------|-----------------|-------------------|-----------------|----------|---------------|--------------|---------------|------------------|----------------|-----------------|----------|------------|-----------------|----------|------------|-------------|----------|--------|----------|---------|------------|----------|------------|--------|--------|-----------|----------|--------|-----------|---------|-----------------|-----------------|-----------|
| | Hebrew, Polish. | Hebrew, Austrian. | Hebrew, German. | Italian. | Newfoundland. | New Zealand. | Poles, N.E.S. | Poles, Austrian. | Poles, German. | Poles, Russian. | Persian. | Roumanian. | Russian, N.E.S. | Finnish. | Dunkhobor. | Mennonites. | Spanish. | Swiss. | Servian. | Danish. | Icelandic. | Swedish. | Norwegian. | Turks. | | Armenian. | Assyria. | Syria. | Portugal. | Arabia. | U. S. Citizens. | Red. Canadians. | Tourists. |
| Allan Line..... | 20 | 30 | 2 | 50 | 12 | 4 | 17 | 1 | 1 | 50 | 1 | 9 | 148 | 328 | 4 | ... | 1 | 11 | ... | 200 | 18 | 383 | 678 | 6 | 5 | 19 | 4 | ... | 4 | 30 | 713 | 37 | 14,633 |
| Furness-Allan..... | ... | ... | ... | 11 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 17 | ... | ... | ... | ... | ... | 1 | 3 | 19 | 53 | ... | ... | ... | ... | ... | ... | 2 | 32 | 12 | 941 |
| Dominion..... | 4 | 14 | ... | 36 | 4 | 4 | 6 | 2 | ... | ... | ... | 1 | 38 | 32 | ... | 1 | 8 | ... | ... | 29 | 5 | 148 | 77 | 8 | ... | ... | ... | ... | ... | 11 | 213 | 46 | 3,499 |
| Canadian Pacific..... | 1 | 3 | ... | 7 | 1 | ... | 7 | ... | ... | ... | ... | ... | 21 | 9 | ... | ... | 12 | ... | ... | 14 | ... | 27 | 51 | ... | ... | ... | ... | ... | ... | 1 | 49 | ... | 944 |
| Hamburg-American..... | 16 | 40 | ... | 104 | 7 | ... | 6 | 10 | ... | 42 | 2 | 116 | 468 | ... | ... | 11 | 11 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 8 | 32 | 8 | 8,073 |
| Other Lines..... | ... | ... | ... | 37 | 616 | ... | ... | ... | ... | ... | ... | ... | 5 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | 34 | 114 | 62 | 1,124 |
| Totals..... | 41 | 87 | 2 | 245 | 633 | 9 | 36 | 13 | 1 | 92 | 3 | 126 | 680 | 382 | 4 | 11 | 2 | 43 | 3 | 244 | 26 | 577 | 861 | 6 | 13 | 28 | 106 | 3 | 4 | 86 | 1153 | 165 | 29,214 |

F. W. ANNAND,
Dominion Government Immigration Agent.

HALIFAX, June 30, 1904.

SESSIONAL PAPER No. 25

STATEMENT G.—Comparative Statement of Monthly Arrivals 1902-3 and 1903-4.

| Months. | CANADA. | | Increase. | Decrease. | STATES. | | Increase. | Decrease. | TOTALS. | | Increase. | Decrease. |
|----------------|------------|------------|-----------|-----------|------------|------------|-----------|-----------|------------|------------|-----------|-----------|
| | 1902-1903. | 1903-1904. | | | 1902-1903. | 1903-1904. | | | 1902-1903. | 1903-1904. | | |
| July..... | 786 | 1,063 | 277 | ..... | 265 | 222 | ..... | 43 | 1,051 | 1,285 | 234 | ..... |
| August..... | 527 | 1,054 | 527 | ..... | 97 | 184 | 87 | .. | 624 | 1,238 | 614 | ..... |
| September..... | 491 | 791 | 300 | ..... | 106 | 102 | ..... | 4 | 597 | 893 | 296 | ..... |
| October..... | 459 | 516 | 57 | ..... | 51 | 31 | ..... | 20 | 510 | 547 | 37 | ..... |
| November..... | 1,244 | 990 | ..... | 254 | 515 | 193 | ..... | 322 | 1,759 | 1,183 | ..... | 576 |
| December..... | 920 | 1,085 | 165 | ..... | 509 | 213 | ..... | 296 | 1,429 | 1,298 | ..... | 131 |
| January..... | 1,015 | 809 | ..... | 206 | 369 | 80 | ..... | 289 | 1,384 | 889 | ..... | 495 |
| February..... | 861 | 1,518 | 657 | ..... | 352 | 225 | .. | 127 | 1,213 | 1,743 | 530 | ..... |
| March..... | 5,616 | 5,283 | ..... | 333 | 817 | 307 | ..... | 510 | 6,433 | 5,590 | ..... | 843 |
| April..... | 7,698 | 9,779 | 2,081 | ..... | 1,010 | 527 | ..... | 483 | 8,708 | 10,306 | 1,598 | ..... |
| May..... | 4,975 | 2,021 | ..... | 2,954 | 870 | 199 | ..... | 671 | 5,845 | 2,220 | ..... | 3,625 |
| June..... | 3,398 | 2,007 | ..... | 1,391 | 612 | 15 | ..... | 597 | 4,010 | 2,022 | ..... | 1,988 |
| Totals..... | 27,990 | 26,916 | 4,064 | 5,138 | 5,573 | 2,298 | 87 | 3,362 | 33,563 | 29,214 | 3,309 | 7,658 |

F. W. ANNAND,

Dominion Government Immigration Agent.

HALIFAX, June 30, 1904.

4-5 EDWARD VII., A. 1905

STATEMENT H.—Comparative Statement of Nationalities Remaining in Canada.

| Nationality. | 1902-1903. | 1903-1904. | Increase. | Decrease. |
|-------------------------|------------|------------|-----------|-----------|
| English..... | 8,569 | 9,967 | 1,398 | |
| Welsh..... | 142 | 205 | 63 | |
| Scotch..... | 2,823 | 3,686 | 863 | |
| Irish..... | 645 | 776 | 131 | |
| South Africa..... | | 7 | 7 | |
| Australian..... | 24 | 18 | | 6 |
| Austrian..... | 178 | 120 | | 58 |
| Bohemian..... | 10 | 61 | 51 | |
| Buckowinian..... | 1,145 | 831 | | 314 |
| Galician..... | 6,812 | 4,643 | | 2,169 |
| Hungarian..... | 1,410 | 523 | | 887 |
| Slovak..... | 81 | 43 | | 38 |
| Lithuanian..... | | 19 | 19 | |
| Belgian..... | 47 | 181 | 134 | |
| Bulgarian..... | 6 | 10 | 4 | |
| Dutch..... | 19 | 66 | 47 | |
| French..... | 78 | 374 | 296 | |
| German Empire..... | 352 | 366 | 14 | |
| German, N.E.S..... | | 350 | 350 | |
| Russian..... | | 1 | 1 | |
| Saxon..... | 13 | 7 | | 6 |
| West Indies..... | 17 | 7 | | 10 |
| Bermuda..... | 6 | 3 | | 3 |
| Jamaica..... | | 30 | 30 | |
| Greek..... | 40 | 17 | | 23 |
| Hebrew, N.E.S..... | 151 | 22 | | 129 |
| " Russian..... | | 590 | 590 | |
| " Polish..... | | 41 | 41 | |
| " Austrian..... | | 87 | 87 | |
| " German..... | | 2 | 2 | |
| Italian..... | 504 | 235 | | 269 |
| Newfoundland..... | 335 | 519 | 184 | |
| New Zealand..... | | 8 | 8 | |
| Poles, N.E.S..... | 119 | 33 | | 86 |
| " Austrian..... | | 13 | 13 | |
| " German..... | | 1 | 1 | |
| " Russian..... | | 90 | 90 | |
| Persian..... | 39 | 3 | | 36 |
| Flemish..... | 4 | | | 4 |
| Roumanian..... | 106 | 101 | | 5 |
| Moldavian..... | 1 | | | 1 |
| Maltese..... | 1 | | | 1 |
| Russian, N.E.S..... | 1,224 | 350 | | 874 |
| Finn..... | 626 | 170 | | 456 |
| Doukhobors..... | | 4 | 4 | |
| Mennonites..... | | 11 | 11 | |
| Spanish..... | | 1 | 1 | |
| Swiss..... | 21 | 34 | 13 | |
| Servian..... | 1 | 3 | 2 | |
| Danish..... | 141 | 125 | | 16 |
| Icelandic..... | 17 | 26 | 9 | |
| Swedish..... | 577 | 344 | | 233 |
| Norwegian..... | 433 | 281 | | 152 |
| Turks..... | 19 | 6 | | 13 |
| Armenian..... | 3 | 13 | 10 | |
| Assyria..... | | 27 | 27 | |
| Syria..... | 684 | 106 | | 578 |
| Arabia..... | 3 | 4 | 1 | |
| U. S. Citizen..... | 30 | 37 | 7 | |
| Returned Canadians..... | 425 | 1,153 | 728 | |
| Tourist..... | 109 | 165 | 56 | |
| Total..... | 27,990 | 26,916 | 5,293 | 6,367 |

F. W. ANNAND,

Dominion Government Immigration Agent.

HALIFAX, June 30, 1904.

SESSIONAL PAPER No. 25

STATEMENT I.—Showing the Number of Arrivals according to Ports of Departure.

| Ports of Embar tion. | Numbers. |
|-------------------------------|----------|
| England, Liverpool..... | 17,410 |
| " London..... | 14 |
| Scotland, Glasgow..... | 3,747 |
| Germany, Hamburg..... | 8,073 |
| France, St. Malo..... | 189 |
| United States, Boston..... | 3,116 |
| " New York..... | 435 |
| Newfoundland, St. John's..... | 796 |
| St. Pierre..... | 9 |
| West Indies and Bermuda..... | 429 |
| Totals..... | 34,218 |

F. W. ANNAND,

Dominion Government Immigration Agent.

HALIFAX, June 30, 1904.

STATEMENT J.—Showing the Number of Immigrants landed at Halifax assisted to Emigrate by various Societies during the year ended June 30, 1904.

| By whom sent out. | ADULTS. | | CHILDREN. | | Total. | Destination. |
|---|---------|---------|-----------|---------|--------|--------------------|
| | Male. | Female. | Male. | Female. | | |
| Dr. Barnardo, London, G.B..... | | | 50 | 3 | 53 | Toronto, Ont. |
| Children Home Orphanage, London, G.B..... | | | 44 | 4 | 48 | Hamilton. |
| Rev. R. Wallace, Belleville..... | | | 49 | 14 | 63 | Belleville. |
| Mr. Fegan's Home, London, G.B..... | | | 49 | | 49 | Toronto. |
| Middlemore Home, Birmingham, G.B..... | | | 68 | 36 | 104 | Fairview, N.S. |
| Sleetering Home, Liverpool, G.B..... | | | 54 | 35 | 89 | Knowlton, Que. |
| The Hon. Mrs. Joyce, London, G.B..... | | 36 | | | 36 | Throughout Canada. |
| Totals..... | | 36 | 314 | 92 | 442 | |

F. W. ANNAND,

Dominion Government Immigration Agent.

HALIFAX, June 30, 1804.

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No. 5.

REPORT OF G. BOGUE SMART, INSPECTOR OF BRITISH IMMIGRANT CHILDREN AND RECEIVING HOMES.

OTTAWA, June 30, 1904.

The Superintendent of Immigration,
Ottawa.

SIR,—In presenting my fifth annual report (for the year ended June 30), I desire to state that the work accomplished by this branch of the department exceeds that of former years.

In Great Britain there is a manifest revival of interest in juvenile emigration to Canada and an increased emigration during the approaching twelve months may be anticipated. It is well to remember that, unlike our general immigration policy, no appeal is made by the government of Canada on behalf of this class of emigrants. It is, therefore, very desirable that those interested in and responsible for the selection of children for emigration should appreciate the importance of sending to this country only such as have received a careful previous training and of possessing as complete a knowledge as possible of their physical condition and moral character.

In years past some doubt existed in the minds of many Canadians as to the wisdom of transplanting children from the cities of Great Britain to Canadian farms, and considerable opposition to the work was experienced by those engaged in it. The adverse criticism was doubtless the natural outcome of a lack of proper organization and supervision in the early history of the work. To-day, however, more careful attention is given to these features of the undertaking, and such criticism is less frequently heard.

The demand for the service of the British juvenile by the Canadian farmer during the past year has been steadily maintained. With the exception of an insignificant number, those on my inspection list are doing well, and few comparatively have been returned to England. With them, as with all children, sympathy and encouragement count for much. During my travels, which have extended throughout the older provinces of the Dominion, a few cases of employers have been found who had apparently overlooked the fact that, so far as capability was concerned, they were dealing with children and not adults. Still I am pleased to be able to report that the care and treatment of the children by their employers have been very satisfactory indeed.

The value of juvenile immigration to the Dominion, as I have already pointed out, depends upon the care and oversight of the children for a reasonable period subsequent to their being placed in homes, and each child must be dealt with individually, otherwise there might be unnecessary hardships endured by the child. In selecting homes and situations, good judgment appears generally to have been exercised.

The value and importance of the receiving and distributing homes cannot, in my opinion, be over-estimated. During the year I have made a personal inspection of the various institutions of this kind in the Dominion, except those in Manitoba, and, without exception, their management appears to be in efficient and capable hands.

With no small degree of satisfaction am I able to note the great advantage of the Canadian government's departmental oversight to both employer and child. When an inspector of the Canadian government finds a boy or girl unsuited for its situation, or

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generally unsatisfactory to its employer, my suggestion for its removal is promptly acted upon by the society or agency concerned. In this connection, I might add that it is the custom of many societies, in placing their wards, to have it clearly understood by employers that they are at liberty to return the child should it prove unsuitable after a month's trial.

Addressing a meeting of the Bristol Guardians recently a speaker referred to an interview he had had with a boy sent to Canada some years previously, as follows :—

'This boy has removed from my (the speaker's) mind any doubt that had existed as to the manner in which the children were inspected when they came to Canada. He proved that the Canadian government inspector regularly visited him and gave him every opportunity to complain.'

Our recently compiled medical regulations have not been found to be unduly stringent, and are well observed. The physical and mental condition of the children coming within my jurisdiction has been very satisfactory. From the Canadian point of view, this is most important, and it is very desirable for the success of the work that the British immigrant child should not compare too unfavourably with our native-born Canadian children.

By special invitation, I was afforded the pleasure of addressing the children of the Catholic Emigrating Association at their New Year's re-union in Montreal. The gathering was attended by some of the leading ecclesiastics and other influential citizens of the metropolis, and was a most successful meeting. The children were bright and intelligent looking and their appearance was creditable to their foster parents and guardians.

Many of our Scotch-Canadian farmers will be pleased to learn of the prospect in the near future of the arrival of a party of boys from the Bridge-of-Weir Homes, Scotland.

I have had the pleasure of personally discussing the various phases of the work and the requirements of the Canadian farmer with Mrs. Birt, of the Liverpool Homes, Miss M. E. Miles, of the Fulham Board of Guardians, and Mr. George Jackson, of Birmingham, England, who are all actively engaged in the care, training and subsequent emigration to Canada of necessitous children, and I have every reason for believing that these conferences will result beneficially to the work.

I cannot close my report without referring to the loss sustained by the Bridge-of-Weir Homes in the death of Mrs. Quarrier, widow of the founder of the orphan homes of Scotland. Many Scottish boys and girls throughout Canada have lost a true friend by her death. The emigration work of the homes was suspended for several years, but the children previously sent out to Canada have not been lost sight of or neglected, and a continual and careful oversight of them has been maintained. I have also to record with regret the retirement of Miss Meiklejohn from the charge of Mrs. Birt's receiving home at Knowlton, P.Q., as she was always most efficient in the discharge of her responsible duties.

The work of the Liverpool Catholic Children's Protective Society and the Canadian Catholic Emigration Society has been taken over by the Catholic Emigrating Association under the general management of Mr. Cecil Arden. Receiving and Distributing Homes are maintained at Montreal and Hintonburg, Ont.

Appended may be found the report of Mr. W. J. Kennedy on his work of inspection of children in Manitoba and the North-west Territories, and the reports of Messrs. Hillyard and Blair, who assisted with the inspection in Ontario and Quebec.

I may add that on my visits of inspection to the various distributing homes I have been received with unfailing courtesy, and that every facility has been given me for the proper discharge of my duties as inspector. These institutions I find to be well equipped, and the ladies and gentlemen in charge of them enthusiastic and painstaking in their efforts for the welfare of the children entrusted to their care.

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The following statement will show the number of children emigrated to Canada during the past year by some of the principal societies, and the number of applications received for children —

| Society or Agency. | Children Immigrated. | Applications Received For children. |
|---|-------------------------|---|
| Bristol Emigration Society, St. John, N.B..... | 40 | 82 |
| Girls' Home of Welcome, Winnipeg..... | No record given. | |
| Shaftsbury Home, Winnipeg..... | " " | |
| Canadian Catholic Emigration Society, Ottawa..... | 106 | 270* |
| Dr. T. Bowman Stephenson, Hamilton..... | 60 | 506 |
| Miss Macpherson, Stratford..... | 142 | 533 |
| Church of England Waifs' & Strays' Society, Sherbrooke, boys..... | 54 | Not reported. |
| Church of England Waifs' & Strays' Society, Niagara-on-the-Lake, girls..... | 29 | 453 |
| Mr. Fegan's Home, Toronto..... | 49 | 500* |
| Rev. Robert Wallace, Belleville..... | 94 | 1,168 |
| Mrs. Birt, Knowlton..... | 106 | 1,309 |
| Mr. Middlemore, Halifax..... | 130 | 300 |
| Dr. Barnardo's Homes, Toronto, Peterborough, Winnipeg and Russell, Manitoba..... | 1,188 | 10,614 |
| Catholic Emigrating Association, Montreal..... | 206 | 549 |
| Mr. Quarrier, 'Fairknowe,' Brockville..... | " " | 249 |
| Self-Help Emigrating Society, Montreal..... | No record given. | |
| East End Emigrating Society, Montreal..... | " " | |
| Working Boy's Home, Lennoxville..... | 8 | 40 |
| Total..... | 2,204 | 16,573 |

* Estimated.

DR. T. BOWMAN STEPHENSON'S HOME, HAMILTON, ONT.

I personally inspected this distributing home on April 6 and found everything highly satisfactory. I was fortunate in reaching the home a few hours after the arrival of their first annual party, and was therefore enabled to inspect them before they were separated. They were in type and intelligence very satisfactory indeed.

The governor, Mr. Frank Hills, furnished me with much information concerning his operations. Mr. Hills states that during the past few years their work has been gradually increasing, although it has not yet reached the proportions of the early years. This year about sixty boys were received. Their healthy, robust physique would have compared favourably with any similar number of Canadian-bred lads. It has been intimated that he may expect a small party this fall, which may bring the number to about 80 for the year. In consequence of the large number of applications he is able to pick and choose homes and endeavours to select only the best. Their children could easily be placed in their own county, but he felt it is to their interest to be distributed in other counties. This year he has placed children in Halton, Hal-dimand, Lincoln, Elgin, Norfolk, Oxford, Wellington, Huron, Welland, Brant and Wentworth. Every boy is placed out under agreement, he goes a month on trial, and the farmer can return the boy any time on giving one month's notice.

The health of the children is reported as excellent.

The moral and material advantages to be gained for the children by residence in Canada are being realized more and more every day, and the children themselves soon appreciate them,

MARCHMONT HOME, BELLEVILLE, ONT.

Mr. Wallace's annual party of juveniles consisted of thirty-four girls and fifty-three boys. They were all personally selected by him in Manchester, Worcester and

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Bath, England, and Saltcoats, Scotland. Their emigration to Canada had been held before them as a reward for good behaviour, and their characters are therefore vouched for. None were brought to Canada contrary to their wish.

Since my last visit only two children have been returned to England, one owing to ill-health and the other had a weak arm.

Marchmont, by its admirable situation, well kept gardens and grounds, makes an ideal home. It is the pioneer receiving home, and was specially built for such a purpose. Gratifying reports as to the progress and behaviour of their children have been received, and the children are well looked after.

MISS MACPHERSON'S CHILDREN'S HOME, STRATFORD, ONT.

I paid my annual visit of inspection to this home on November 13, and found, as on previous occasions, everything in good order.

Mr. W. H. Merry has since returned from England and resumed the oversight of Miss Macpherson's Canadian work. Mr. Merry reports that in the matter of applications received during this past-year the demand has been markedly greater than usual. Only those applications are retained by him that come within easy reach of the home, very few indeed of their children being placed east of Wellington or west of Middlesex county. He has retained on his application list 286 applications for boys and 247 applications for girls during the year.

The reports of those who visit the children in their homes have given him great satisfaction during the year, and the progress and prospects for young people are most encouraging. Many of the older ones have been happily married and several again this year have added to the country of their adoption by bringing out some of their relatives to join them in Canada.

MR. J. W. C. FEGAN'S HOME, TORONTO, ONT.

I visited this home shortly after the arrival of their first annual party of boys. A number had been sent forward to their situations, and those remaining were preparing to be sent out. They were a fine, healthy lot of lads, and well suited for Canadian farm life. Each one had a liberal supply of clothing of good quality, and nothing essential in this regard appeared to have been overlooked. A large selection of wholesome reading matter and note paper were included in their boxes.

The home throughout is well maintained.

CATHOLIC EMIGRATING ASSOCIATION.

My second annual inspection of this home was made on May 16. Their first party of boys reached Quebec on the 8th idem by ss. *Bavarian*. The party consisted of forty-four boys, eleven of whom were sent to Canada under the authority of the boards of guardians; the balance were from private institutions and schools in and about London. Their maximum age was sixteen and minimum eleven years. I found twenty of this party in the home, the others having been sent forward to situations in Ontario and Quebec.

The home is conveniently situated in St. Antoine street, but the lack of ground-room is felt somewhat. The interior of the house is well adapted for a receiving home and the rooms are large and airy. Fifty children could easily be accommodated. Two large connecting parlours are used as a reception-room and weekly 'at homes' or reunions are held on Sunday evenings for their children residing in the city. I spent some time here with Mr. Arden, who received me most courteously and spared no trouble to explain the various details of the daily routine of the home and the policy of the society in dealing with and placing out children. The work is arranged with

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a view to thoroughness and reasonable economy, and I believe no pains are spared to make the supervision and care of their children as effectual as possible.

In addition to the party that had just arrived, four sailings have been booked for between now and September 1.

Many more applications have been received than it will be possible to fill.

MRS. BIRT'S HOME, KNOWLTON, P.Q.

One hundred and six children were brought to Canada by Mrs. Birt during the past year. They were promptly placed, as many applicants were awaiting their arrival. Many of their children, who have done well in Canada, encourage others of the family to come to this country. Twenty-one of the spring's band had friends already in Canada.

During the past year Miss Birt and Mr. Drummond spent some time visiting the children placed out, in addition to that done by the four gentlemen—government school inspectors—who go the round of the children in their several districts.

In the summer of 1903, Mr. Drummond, of the Liverpool Home, visited 298 boys and girls and reported that he found the children wearing better clothes, eating better meals, and living under happier conditions than they had been accustomed to in the Old Land.

The Home is well managed and due regard paid to the comfort and welfare of the children.

CHURCH OF ENGLAND WAIFS' AND STRAYS' SOCIETY, THE GIBB HOME, SHERBROOKE, P.Q.

I inspected this home shortly after the arrival of twelve boys whom I personally inspected at the home. Generally speaking, they were of robust appearance and good type. The children, so far as I am able to learn, made the journey to Canada unaccompanied. Two lads are at the home and will probably remain for a time as the matron is experiencing some difficulty in securing suitable situations for them on account of their size and age.

Agreements for all children placed have been entered into and nominal wages provided for.

A new dining room has been provided at the home; and the general appearance of the house and grounds proves that the matron is performing her duties in a satisfactory manner.

"OUR WESTERN HOME," NIAGARA-ON-THE-LAKE, ONTARIO.

On the occasion of my visit to this historical institution there were a number of children of tender age in residence. They were bright, healthy looking little girls and appeared to be happy and contented. These children, I understand, will make an indefinite stay, during which they will receive an elementary tuition in the home under the society's governess.

The home is large and commodious, and the quarters set apart for the children are comfortable. The lady superintendent and her assistants are evidently much interested in their work.

THE MIDDLEMORE HOME, FAIRVIEW, HALIFAX.

This home was inspected on June 4. There were no children in residence. The superintendent was expecting their first party within a day or so and everything was in readiness for their reception.

I was informed that comparatively a small number of their juveniles had been returned or removed from situations during the year, and complaints concerning the children and their treatment had likewise been infrequent.

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The quarters reserved for the children were properly arranged, and the home throughout was in good order.

The system of visiting the children each year is regularly kept up, and the interests of the children are not overlooked. No child is placed except under a written agreement or indenture covering a stated term.

DR. BARNARDO'S BOYS' HOME, TORONTO, ONT.

During the past year 1,188 children were emigrated by Dr. Barnardo, an increase of thirty-eight over the previous year. In consequence of their growing numbers the staff of visitors are out amongst the children the year round. No change has occurred in the plan of placing their children; and written indentures are in every case entered into between the superintendent of the home and the employer. Fewer children have changed their situations than one would naturally expect. Of the large number of Barnardo children under departmental inspection I am able only to recall a very small number who are not in the enjoyment of good health.

Mr. Owen, general superintendent of Dr. Barnardo's work in Canada, states that the percentage not making satisfactory progress or who have proved a disappointment has been small. The result of the year's work has been gratifying.

I am advised that approximately 400 silver medals have been distributed amongst the boys for length of service and good conduct. The distribution of medals is an annual event.

On the various occasions that I visited this home few children were found at headquarters, and I learned on inquiry that many of these were formerly boarders and were here en route to situations after having reached the completion of the boarding-out term; others were being transferred from one situation to another.

Their records are so carefully kept that any information I have required has been furnished with promptness. The home throughout is well maintained; and the children lack no necessary comfort during the time they remain here.

'HAZEL BRAE,' DR. BARNARDO'S RECEIVING HOME FOR GIRLS, PETERBOROUGH, ONT.

On April 20 I paid my annual visit to this interesting home, and found it a very busy centre. The secretary, matron and their assistants are much devoted to their work.

Great importance is laid on the personal visitation of their children in their new homes and each girl is visited at least annually by one of their lady visitors. Their reports as to health, progress and behaviour have, with few exceptions, been very satisfactory. There has been a largely increased demand for girls this year.

'Hazel Brae' is admirably situated and well maintained.

Your obedient servant,

G. BOGUE SMART.

REPORT OF R. W. HILLYARD.

(Appended to Mr. Smart's Report.)

G. BOGUE SMART, Esq.,

Inspector of Immigrant Children.

SIR,—It was my privilege to be engaged in the inspection of immigrant children under your supervision. Having visited about 140 children, I am in a position to form a fairly correct idea of the nature and importance of the work being done. I have found that in the large majority of cases the children are comfortably placed and

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do not hesitate to express their gratitude for the homes provided for them. I also find much satisfaction among those who have taken them under their roof. Another gratifying feature is the good health of the children; among those visited not one was found in ill-health.

The placing of most of the children in rural districts, where they are safe from the temptations of town and city life, is conducive to their moral and physical development. In view of the splendid work which is being done there should be in Canada enlarged sympathy and practical support toward the homes engaged in this good work.

Your obedient servant,

R. W. HILLYARD.

REPORT OF W. J. KENNEDY.

(Appended to Mr. Smart's Report.)

G. BOGUE SMART, Esq.,
Inspector of Immigrant Children,
Ottawa.

SIR,—As requested by the Commissioner of Immigration, I give you a report of my inspection of British immigrant children as follows: Upon receiving instructions from the department I set out on October 1 and made a tour of inspection. I first took the list provided and saw Mr. Malcolm Davis, of the Barnardo Home, Winnipeg, and with his assistance corrected the same as to present abode and addresses of children, and, having secured this, I set about the inspection, laying out the most convenient routes in order to economize time and travelling expenses as much as possible. I visited each child on the list apportioned to me, and in every case—with the exception of two, where the boys were away at the time of my visit—I questioned the child closely as to his surroundings, his treatment by his employer, his hopes, fears and desires, and I am pleased to report that I found them invariably satisfied—all enjoying good health; no complaints of a serious nature were made to me, and only trifling grievances such as a distaste for herding cattle or having to help the mistress of the house in some cases—‘girl’s work’—which some of the boys did not like. However, I advised them to exercise patience and as they grew older their employer would allocate to them more ‘manly’ work, and in after years they would not regret their kitchen experience.

Only two of the children visited were placed with bachelors, but in these cases I found they were in good homes and if not enjoying the benign influence of the tender sex, they were in good hands, well fed, well clothed and cleanly kept. I found in nearly all cases the children had fair schooling, and were kept in practice by reading, attending Sunday school and church, and that when schools were available and the agreements called for it they were getting the benefit of school attendance.

The individual reports which will no doubt come before you will give the exact situation as to each child.

I also took occasion to talk with their employers and their side of the story was fairly satisfactory; some complaint was made of the untruthfulness of some of the children; others were inclined to be lazy, but on the whole most of them admitted the boys were about as good as the average of any class or nation.

In connection with the foregoing, I might say that on the whole this class of immigrants are very desirable and quite a useful addition to our population, as I found great demand among farmers for boys who could help about the farm doing chores, herding cattle, and in many ways helpful to the farmer, and the children, if carefully selected, and the vicious and incorrigibles culled out before sending to

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Canada, are quite capable of filling the bill. And I believe the placing of them with good farmers is best for them, as they will not be so liable to come in contact with vicious associates as if they were placed in towns and villages. As they grow up to maturity it will then be time for them to choose other occupations as may seem most suitable for them to pursue. I found a disposition on the part of many employers to treat the children as their own, and as their equals in every way. I found the officials of the Barnardo Home most courteous and obliging, and evidently desirous of doing their very best for the children entrusted to them. I found on inquiry among the children and their employers that the officers of the home were in constant touch with the children and kept themselves posted as to their health, their grievances, &c., and investigated promptly any alleged ill-treatment or other derogatory rumours which came to their knowledge, and did not hesitate, where circumstances warranted, to adopt firm measures to meet the case.

Your obedient servant,

W. J. KENNEDY.

REPORT OF F. C. BLAIR.

(Appended to Mr. Smart's Report.)

G. BOGUE SMART, Esq.,

Inspector of British Immigrant Children and Receiving Homes,
Ottawa.

SIR,—I beg to submit the following report of my work.

During the month of June I visited the province of New Brunswick, where there are some 90 or more workhouse children, the majority of whom came through the Bristol Emigration Society, and of this number I visited 82. The general health of the children is splendid; not more than three or four cases in which sickness was reported. The general behaviour is also good, apart from a tendency to run about without the consent of the agent.

A party of forty children arrived in St. John, June 20. They were fine types with but few exceptions, and all seemed to be in the best of health and spirits. Some were given away at once, the others being taken to the immigration building, where they were kept for a day or two before all were placed out. The sailors' home, which was used last year as a distributing centre, is no longer available for this purpose. The demand for these children is increasing. I have also visited a number of children from various homes placed throughout Ontario and Quebec, and have found the work in good condition. The progress of the children is generally satisfactory, and many express their satisfaction with their Canadian homes. Seldom does a week pass without some boy or girl inquiring how to get some brother or sister out to Canada.

Your obedient servant,

F. C. BLAIR.

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No. 6.

REPORT OF THE CHIEF MEDICAL OFFICER.

DEPARTMENT OF THE INTERIOR,

OTTAWA, June 30, 1904.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I beg to submit a report on the work of the medical inspection service for the year 1903-4. The work has had to do with the total number of immigrants arriving at the ports of Quebec, St. John, Montreal and Halifax, as shown in the following table :—

TABLE I.—Statement of the number of immigrants entering Canada via Ocean Ports, and of immigrants from the United States through Montreal, during the year 1903-1904.

Halifax.

| Month. | For Canada. | For United States. | From United States. | Total. |
|----------------|----------------|--------------------------|---------------------------|--------|
| July..... | 1,021 | 222 | ..... | 1,243 |
| August..... | 1,022 | 184 | ..... | 1,206 |
| September..... | 776 | 102 | ..... | 878 |
| October..... | 490 | 31 | ..... | 521 |
| November..... | 954 | 193 | ..... | 1,147 |
| December..... | 1,048 | 213 | ..... | 1,261 |
| January..... | 749 | 80 | ..... | 829 |
| February..... | 1,326 | 225 | ..... | 1,551 |
| March..... | 4,953 | 307 | ..... | 5,260 |
| April..... | 9,364 | 527 | ..... | 9,891 |
| May..... | 1,961 | 199 | ..... | 2,160 |
| June..... | 1,934 | 15 | ..... | 1,949 |
| Totals..... | 25,598 | 2,298 | ..... | 27,896 |

Quebec.

| | | | | |
|----------------|--------|--------|-------|--------|
| July..... | 6,955 | 2,221 | ..... | 9,176 |
| August..... | 5,271 | 2,051 | ..... | 7,322 |
| September..... | 4,323 | 1,839 | ..... | 6,162 |
| October..... | 4,282 | 1,683 | ..... | 5,965 |
| November..... | 1,887 | 697 | ..... | 2,584 |
| December..... | ..... | ..... | ..... | ..... |
| January..... | ..... | ..... | ..... | ..... |
| February..... | ..... | ..... | ..... | ..... |
| March..... | | | | |
| April..... | | | | |
| May..... | 14,637 | 1,351 | | 15,988 |
| June..... | 8,632 | 1,141 | | 9,773 |
| Totals..... | 45,987 | 10,983 | | 56,970 |

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TABLE I.—Statement of the number of immigrants entering Canada, &c.—*Concluded.**St. John.*

| Month. | For Canada. | For United States. | From United States. | Total. |
|----------------|----------------|--------------------------|---------------------------|--------|
| July | | | | |
| August..... | 10 | 19 | | 29 |
| September..... | 3 | | | 3 |
| October..... | | | | |
| November..... | 512 | 614 | | 1,126 |
| December..... | 1,098 | 801 | | 1,899 |
| January..... | 511 | 480 | | 991 |
| February..... | 992 | 526 | | 1,518 |
| March..... | 2,101 | 505 | | 2,606 |
| April..... | 3,032 | 237 | | 3,269 |
| May..... | | | | |
| June..... | | | | |
| Totals.... | 8,250 | 3,182 | | 11,441 |

Montreal.

| | | | | |
|------------------|--------|--------|-------|---------|
| July .. | 147 | | 241 | 388 |
| August..... | 280 | | 206 | 486 |
| September..... | 128 | | 121 | 249 |
| October..... | 257 | | 170 | 427 |
| November..... | 297 | | 118 | 415 |
| December..... | 208 | | 99 | 307 |
| January..... | 93 | | 100 | 193 |
| February..... | 193 | | 124 | 317 |
| March..... | 933 | | 367 | 1,300 |
| April..... | 1,320 | | 345 | 1,665 |
| May..... | 791 | | 373 | 1,164 |
| June..... | 669 | | 232 | 901 |
| Totals..... | 5,316 | | 2,496 | 7,812 |
| Grand total..... | 85,160 | 16,463 | 2,496 | 104,119 |

While the service is especially interested in the inspection of immigrants destined for Canada, it has also to take oversight of immigrants arriving at Canadian ports but intending to pass into the United States over Canadian railways. This latter work is necessitated by the fact that should such immigrants not be inspected at the ports by officers of the United States immigration service, they would be detained at the many border ports of entry into that country to the inconvenience not only of the immigrants themselves, but also of the railways and the towns on the Canadian side of the border. Provision exists whereby these immigrants are transferred to the United States officers on landing from the vessels, and such as are detained are reported to the immigration agent of the port as undesirable immigrants either on account of disease or owing to lack of funds. The practice hitherto has been for the agent to report these to the transportation company which transported them to Canada, with instructions to either deport them or provide means for their maintenance and treatment in the detention hospitals which have been established at the several ports. Owing to these arrangements it has been possible to prevent the deportation of many immigrants who have been induced to take passage by Canadian steamship lines and to facilitate the commercial operations of the latter. While the practice is in some respects anomalous, still, so long as the cost of detention is fully met by the transportation companies, it presents no objections so serious that they are not perhaps more than counterbalanced by the advantages both to the immigrants and to the companies.

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While under the Immigration Act, Cap. 65, Revised Statutes of Canada, large powers are reposed in the minister of the department and his officers for regulating the entrance of immigrants into Canada, yet owing to the many changed circumstances since the Act was consolidated in 1872, it became necessary to amend it, and in 1902 an Act cap. 14, was passed amending the Immigration Act by the following sections:—

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CHAP. 14.

AN ACT TO AMEND THE IMMIGRATION ACT.

(Assented to May 15, 1902.)

‘His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada enacts as follows:—

‘1. *The Immigration Act*, chapter 65 of the Revised Statutes, is amended by inserting the following section immediately after section 24:—

“24 A. The Governor General may, by proclamation or order, whichever he considers most expedient, and whenever he deems it necessary, prohibit the landing in Canada of any immigrant or other passenger who is suffering from any loathsome, dangerous or infectious disease or malady, whether such immigrant intends to settle in Canada, or only intends to pass through Canada to settle in some other country.

“2. Such prohibition may be absolute, or may be accompanied by permission to land for medical treatment only, for a period to be determined as provided by order or proclamation.”

“2. Any person landed in Canada from a vessel in contravention of *The Immigration Act* or any Order in Council or proclamation lawfully issued thereunder, or any person landed for medical treatment who remains in Canada in contravention of such order or proclamation, may be apprehended, without a warrant, by any immigration agent or other government officer, and may be compelled to return or be taken on board the vessel, and by force if necessary; and every owner or master of a vessel who violates the provisions of this Act, or who aids or abets any immigrant or passenger in acting in contravention of such order or proclamation, or who refuses or neglects to take back on board the vessel any such immigrant or passenger, shall incur a penalty not exceeding ten hundred dollars, and not less than one hundred dollars in the case of each and every of such immigrants or passengers.”

EXTRACT from a report of the Committee of the Honourable the Privy Council, approved by His Excellency on August 15, 1902.

‘On a report dated July 26, 1902, from the Minister of the Interior, submitting with reference to the provisions of the Act, chapter 14 of 2 Edward 7, intituled “An Act to amend the Immigration Act,” and in view of the large numbers of immigrants who are now coming from foreign countries to Canada and to the United States via Canadian ports, that it is expedient and necessary that a proclamation be issued forthwith, in accordance with the provisions above referred to, prohibiting the landing in Canada absolutely of any immigrant or other passenger who is suffering from any loathsome, dangerous or infectious disease or malady, whether such immigrant or passenger intends to settle in Canada or only intends to pass through Canada to settle in some other country, and whom the Minister of the Interior or officer to whom he intrusts the matter, considers should be absolutely prohibited from landing in Canada or permitting any such immigrant or passenger to land in Canada for medical treatment, only for such period as such minister or officer may deem reasonable and sufficient to effect his cure, and authorizing such minister or officer to take such action at the expir-

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ation of such period if any such immigrant or passenger so permitted to be landed for medical treatment is not then cured of the disease or malady from which he is suffering as may be necessary, and as can be taken under the provisions before referred to, to return such immigrant or passenger or to compel him to be taken on board the vessel from which he was so temporarily landed, and having so returned him or compelled his return to such vessel, prohibiting his being again landed in Canada.

'The minister therefore recommends that a proclamation in such terms be issued forthwith and that the Minister of the Interior be authorized to give any officer to whom he may entrust any action arising under such proclamation and the provisions before referred to, such instructions as he may deem advisable and necessary for the conduct of such action in accordance with the terms and intention of such proclamation and provisions.

'The committee submit the same for approval.

(Signed)

'JOHN J. MCGEE,

'Clerk of the Privy Council.

'To the honourable

'The Minister of the Interior.

N.B.—Published in *Canada Gazette* on September 20, 1902, Vol. 36, No. 12, for the second consecutive week.'

Under these amending clauses medical inspectors were appointed at the ports of Quebec, Halifax, St. John, Montreal and Winnipeg, and the service was organized under an Order in Council, dated August 15, 1902. This service has been in operation during the two past seasons, and the duties of the medical inspectors are carried out under instructions as set forth in a printed manual which includes the following sections to which are appended brief descriptions of those diseases, especially demanding attention.

INSTRUCTIONS FOR THE MEDICAL INSPECTION OF IMMIGRANTS.

'In order to comply with and enforce the Immigration Act, Amendments thereto, and Regulations made thereunder, the attention of Medical Inspectors, and others connected with the Immigration Service, is directed to the following particulars regarding those persons who may not be admitted as immigrants to Canada, or only admitted under certain conditions.

'Class I.—Those persons who by reason of some specified physical disability or disease, or through some moral or criminal cause, are refused admission to Canada.

'Class II.—Those persons who by reason of being diseased, crippled or deformed, or through some mental condition, must be held for examination as to whether the conclusion "that they are likely to become a public charge" can be justified.

Class III.—Those persons who, suffering from some physical disease of a curable character, may be admitted for treatment to a Detention Hospital under the supervision of the department, under the conditions set forth in the Act or Regulations.

Class I will therefore include: (a.) all persons convicted of some crime; (b.) all insane persons; (c.) all epileptics; (d.) all idiots; (e.) all blind, deaf and dumb persons, and other defectives; (f.) all advanced consumptives; (g.) all suffering from chronic venereal disease.

'Class II will include those suffering from: (a) dangerous contagious diseases, e.g., small-pox or diphtheria; (b.) contagious or loathsome diseases not necessarily dangerous to life, but which may be chronic or incurable, e.g., favus or trachoma; (c) from organic diseases, as heart disease, kidney disease, &c.; (d.) or who may be deformed or crippled.

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'Class III will include those suffering from: (a) some mild acute contagious disease, e.g., measles, chicken-pox; (b) a curable parasitic disease, e.g., tinea, scabies, &c.; (c) or a disease which, though non-contagious, may demand treatment, e.g., eczema, injuries, &c.

'1. Medical Inspectors are instructed to exercise due care, when making reports to classify cases, and to give such details of symptoms as will indicate the chief characteristics of the disease reported upon.

'2. Examinations must be made in the day time and under no circumstances are such to be made in badly lighted places. In dull weather artificial light must be used, and should shine from behind the examiner. The medical inspection shall be carried out as soon as possible after arrival of the vessel in port, and before passengers are identified by the agent of the station.

'3. Crowding of those presenting themselves for inspection must not be permitted, and the inspector must so arrange that he has a free space of ten feet in front, so that he can observe properly the walk of the persons approaching. Except infants under one year, other children in arms must be placed on the floor to show if any evidence of infantile paralysis is present, while a proper view of the eyes may be had by causing the person to look at the raised finger as he approaches.

'4. The Medical Inspector must look especially for lameness, ataxic gait and paralysis, spinal curvature and hunchbacks, and pigeon-breasts for evidences of disease.

'5. He must further carefully examine the marks or stigmata of degeneracy, as strabismus, hare-lip, defects of the palate, defective speech, and any other abnormal developments.

'6. He must also examine for evidence of rickets, as knock-knee, and for scrofulous glands of the neck, discharging ears, scabies on hand, &c.

'7. Especially must he look for these several defects in all undersized persons, as it is in persons from the slums that these defects are most commonly present.

'8. Having had the hat removed, he must examine the scalp for evidence of favus, tinea, pediculi, &c., and in all cases of baldness, where the scalp is in any way abnormal, hold them for special examination.

'9. The eyes must be carefully examined by everting the lids and examining the mucous membrane for trachoma or chronic conjunctivitis, characterized by firm persistent granulations general or localized, often associated with muco-prurulent discharge, eroded mucous membrane, with scar tissue in patches or bands, roughened cornea and pannus, trichiasis and entropion. The mild cases of conjunctivitis and blepharitis, due to smoke and dust of the voyage, should be distinguished from the contagious forms of disease.

'10. He shall in all cases, before allowing the vessel to proceed, receive from the shipmaster and surgeon a signed statement, giving the facts regarding what diseases or accidents, if any, have occurred or been present in patients during the voyage, and shall examine the vessels with a view to reporting to the Chief Medical Inspector any lack of structural or sanitary conveniences likely to promote the spread of disease amongst passengers.

'11. Having detained for special examination persons suspected by himself, or referred to him by an immigration officer of any foreign country, of any disease or condition falling under any of the several previous classes, the Medical Inspector, in any doubtful cases, shall refer it for detailed examination to the physician in charge of the detention hospital. Whenever such physician is an officer of the department, or is employed by the transportation companies, the examination in detail of all cases *certified for entry* by him shall be reviewed by the Medical Inspector of the Department; and every *certificate for entry* shall bear the signature both of the hospital physician and of the medical inspector. Whenever any serious difference of opinion exists regarding any case, the matter will be referred to the Chief Medical Inspector of the Department, whose decision shall be final. Whenever the true nature of any case has been determined, as regards its incurable, or probably curable character only

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within a given time, the written report of the physician of the detention hospital shall be given to the medical inspector, who, if agreeing, shall certify to same, and transmit it at once to the immigration agent of the port for communication to the transportation company or companies interested, for their decision as to the disposition of the case, in the matter of cost of treatment.

'12. The report in any case where the physical condition or disease present comes either under Class I, is such as is likely to make the person a public charge, or is such as cannot be cured except after months of treatment, shall recommend that the person reported upon be deported, as being undesirable as an immigrant. A copy of the detailed medical examination with the report made thereon to the immigration agent, if recommending deportation, shall, within twenty-four hours thereafter, be forwarded to the Chief Medical Inspector at Ottawa.

'14. The details of the examination of every case detained on account of suspected disease shall be entered in the record book supplied for the purpose, to be kept at the detention hospital, and to be filled out by the physician in charge. A weekly report shall be forwarded to the Chief Medical Officer at Ottawa, containing the particulars called for on the form supplied for the purpose, of all patients detained for treatment. The signed report must be filled out by the physician in charge of the detention hospital and forwarded to the medical inspector of the port for certification and transmission to Ottawa. The medical inspector is empowered to examine all persons detained in hospital, and to satisfy himself of the correctness of the report before its certification by him.

'15. The Medical Inspector shall enter the results of the examination of the passengers of every ship in the record book kept by him at the port, and shall at once thereafter report the results of such examination to the Chief Medical Officer, by letter or on the form provided for the purpose.

'P. H. BRYCE,

'Chief Medical Inspector.'

In order that the treatment of immigrants who, though otherwise desirable, yet were suffering from some curable disease, might be effected, it became necessary that facilities therefor should be provided either by the transportation companies, or by the department. During the season of 1902-3 the transportation companies provided temporary hospitals at the three ports of Quebec, Halifax and St. John, while the release of patients therefrom was subject to the medical inspectors of the ports. The work was carried out with fair satisfaction; but, certain obvious objections attaching to this method, the department has during 1903-4 taken over the work at Quebec, and is completing arrangements for doing the same at the ports of Halifax and St. John. This has necessitated the purchase at Quebec of the Savard Park property, situated on the Petite Rivière, and consisting of three acres of land, and two large buildings, one being a two-story brick building, capable of accommodating comfortably 150 patients, and the other a frame building, which in an emergency will accommodate 200 more. During the past season 250 patients was the largest number present at one time in the Quebec detention hospital. The buildings have been refitted and equipped with all the requirements of a modern hospital, and in them 880 patients were treated up to November 30, 1904. It is the largest and probably best equipped immigration detention hospital on the continent, and has served as an adequate complement to the medical inspection work instituted in 1903.

The principle laid down at the beginning of this hospital work has been that, while no undesirable immigrant is to be allowed admittance to Canada, yet for those thought worthy of admission the best medical service should be supplied at a minimum cost to the immigrant. Hence while the transportation companies have had to guarantee the cost of their detention and treatment, yet since this cost is made a charge against the immigrant or his friends, it was decided that during the season of 1904, a per diem charge of only 50 cents would be made for each patient, it being understood, should

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this amount prove inadequate for the cost of maintenance and treatment, that next year the amount would be supplemented by a further charge. The following statement may prove of interest as illustrating the cost of maintaining such a hospital. It will be noted that the charge for hospital guards is much larger than is required by ordinary hospitals, since the necessarily compulsory nature of the detention will be readily understood.

TABLE II.—Statement showing the cost of maintenance and administration of the Quebec hospital from May 1 to June 30, 1904.

| | |
|---|-------------|
| Medical service. | \$ 203 33 |
| Attendants and guards. | 487 48 |
| Housekeeping. | 1,742 41 |
| Transport of immigrants from wharf to hospital and return. | 299 75 |
| Total. | \$ 2,732 97 |

The number of detained immigrants includes principally those suffering from some disease; but a number of others are included, chiefly the children or other relatives of the persons detained as patients. The following table gives a statement of the persons detained, the reasons for such detention, &c.:

TABLE III.—STATEMENT showing number of Immigrants detained at Quebec Immigration Hospital, during May 1, to June 30, 1904.

Total includes patients and those accompanying patients; and those patients detained for deportation.

| Total persons detained. | Total persons suffering from disease. | Total persons accompanying patients. | | Total No. of days of detention for patients. | Total No. of days of deten- tion of those accompanying. | | Total charges for patients. | Total charges for those accompanying. | | Average No. of days of detention of patients. | Average No. of days of detention of those accom- panying. | |
|----------------------------|---|--|--------|--|--|--------|--------------------------------|---|---------|---|--|--------|
| | | Acc. | L.P.C. | | Acc. | L.P.C. | | Acc. | L.P.C. | | Acc. | L.P.C. |
| 357 | 329 | 23 | 5 | 4,883 | 353 | 56 | \$2,441 50 | \$105 90 | \$28 00 | 14.84 | 15.34 | 11.2 |

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As may be supposed, the number of persons detained varies from month to month with the number of immigrants entering the port and with the character of immigrants carried by the different ships. Speaking generally, the three principal steamship companies carrying passengers from British seaports brought in during the season the same average types of immigrants, and appeared to exercise care in the selection of immigrants as regards health before selling them transportation.

As might be expected, the immigrants from different countries and different centres, arriving by different ships of the several lines, vary in their freedom from disease, and especially diseases of the eyes; and hence it has been found that while from some vessels not a single person was detained, from others a very considerable number would be sent to the hospital. The latter occurs principally with vessels coming from the continental ports of Hamburg, Antwerp and Havre. The strictness of the inspection at Canadian ports has resulted in a more rigid examination of immigrants before leaving European ports and in lessening the number of detentions for treatment on account of disease.

The following table gives the number of passengers carried by the several steamship companies, and the number of detentions and deportations:—

TABLE IV.—Statement showing the number of passengers carried by the several SS. Companies to Quebec and the number of Detentions and Deportations from May 1 to June 30, 1904.

| | MAY. | | | | JUNE. | | | |
|-----------------------------|------------------------|-------------------------|---------------------|-------------------------|------------------------|-------------------------|---------------------|-------------------------|
| | No. of Pass. arriving. | No. of Pass. De-tained. | Per cent De-tained. | No. of Pass. De-ported. | No. of Pass. arriving. | No. of Pass. De-tained. | Per cent De-tained. | No. of Pass. De-ported. |
| Allan SS. Company..... | 3,992 | 23 | 0·57 | 4 | 6,601 | 14 | 0·21 | 4 |
| Dominion Line | 4,433 | 27 | 0·609 | ..... | 1,876 | 26 | 1·38 | 3 |
| C.P.R. SS. Company..... | 3,001 | 134 | 4·46 | 4 | 2,421 | 29 | 1·19 | 4 |
| Hamburg-American Company | 2,249 | 36 | 1·55 | 1 | ..... | ..... | ..... | ..... |
| Canadian Lines, Limited .. | ..... | ..... | ..... | ..... | 312 | 64 | 20·51 | 4 |
| Franco-Canadian SS. Co. ... | 449 | 45 | 10·02 | 23 | | | | |
| Total..... | 14,124 | 265 | 1·87 | 32 | 11,210 | 133 | 1·88 | 15 |

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The following table gives the nationality of the persons detained at the Quebec hospital :—

TABLE V.—Statement showing the nationality of the persons detained at the Quebec Hospital from May 1 to June 30, 1904.

| Nationalities. | MAY. | | | | JUNE. | | | |
|------------------------|------------------|--------------------------|-------------------|-----------------------------------|------------------|--------------------------|-------------------|---------------------------------|
| | Allan SS. Co. | Do- minion SS. Co. | C.P.R. SS. Co. | Franco- Cana- dian Line. | Allan SS. Co. | Do- minion SS. Co. | C.P.R. SS. Co. | Can- adian Lines, Ltd. |
| Armenian..... | | 1 | | | | | | |
| Austrian..... | | | 12 | | | | | |
| Austrian-Galician..... | | | | | | | | |
| Austrian Jew..... | 1 | 1 | | | | | | |
| Belgian..... | | | 1 | | | | | |
| Danish..... | | | 1 | | 1 | | | |
| English Jew..... | 2 | | | | | | | |
| Finlander..... | | | 1 | | | 6 | | |
| French..... | | | 1 | | | | | |
| Galician..... | | | 11 | | 2 | | 5 | |
| Galician-Russian..... | | 1 | | | | | | |
| German..... | 1 | 1 | 5 | | | | | |
| German Jew..... | | 2 | | | | 1 | | |
| German Pole..... | | | | | | | | |
| German-Russian..... | | | | | | | | |
| Grecian..... | | | 4 | 2 | | 3 | | |
| Hebrew..... | | | | | | | | |
| Hollander..... | | | 2 | | | | | |
| Hungarian..... | | | 2 | | | | | |
| Italian..... | | 2 | 38 | | 1 | 2 | 10 | 2 |
| Icelandic..... | | | | | 2 | | | |
| Lithuanian..... | 2 | | | | 2 | | | 4 |
| Maltese..... | | | | | | | | 1 |
| Norwegian..... | 4 | | 1 | | | 7 | | |
| Poles..... | 1 | 4 | 10 | | | | 3 | 1 |
| Persian..... | | 1 | | | | | | |
| Russian..... | 1 | 2 | 2 | | | 1 | 3 | 2 |
| Russian Jew..... | 8 | 12 | 23 | | 5 | 4 | 6 | 35 |
| Russian-German..... | | | 16 | | | | 2 | |
| Russian Pole..... | 1 | | 1 | | 1 | | | |
| Roumanian..... | | | | | | 1 | | 1 |
| Routhenian..... | | | | | | | | |
| Scotch..... | 1 | | | | | | | |
| Silesian..... | | | 1 | | | | | 15 |
| Syrian..... | | | | 38 | | | | |
| Swedish..... | | | 2 | | | 1 | | |
| Welsh..... | 1 | | | | | | | |
| Turk..... | | | | 5 | | | | 3 |
| Totals..... | 23 | 27 | 134 | 45 | 14 | 26 | 29 | 64 |

Equally interesting with the number detained is the character of disease causing the detention. The nature of the medical inspection is seen in the instructions, already set forth, and the fact that so few cases of detention took place for other than diseases of the eyes, amply shows that much care is exercised by officers of the Immigration Service in Great Britain and on the continent and the steamship companies, in rejecting persons affected with the more evident causes of physical disability.

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The following table gives in detail the diseases for which immigrants were detained at the Quebec immigration hospital :—

TABLE VI.—Statement showing the several diseases for which Immigrants were detained at the Quebec Immigration Hospital, from May 1 to June 30, 1904.

| NATIONALITIES. | Trachoma. | Conjunctivitis. | Tabs. | Tuberculosis. | Favus. | Idiotic. | Tonsillitis. | Various light indispositions. | Adenitis Lymphatics of neck. | Acne. | L. P. C. | Gland Fever. | Accidental poisoning. | Total. |
|------------------|-----------|-----------------|-------|---------------|--------|----------|--------------|-------------------------------|------------------------------|-------|----------|--------------|-----------------------|--------|
| Armenian..... | 1 | | | | | | | | | | | | | 1 |
| Austrian..... | 4 | | | | | | | | | | | | | 4 |
| Belgian..... | 1 | | | | | | | | | | | | | 1 |
| English Jew..... | 1 | | | | | | | | | | | | | 1 |
| Finlander..... | 5 | | | | | | | | | | | | | 5 |
| Galician..... | 24 | | | | | | | | | | | | | 24 |
| German..... | 10 | | | | | | | | | | | | | 10 |
| Grecian..... | 5 | | | | | | | | | | | | | 5 |
| Hollander..... | 1 | | | | | | | | | | | | | 1 |
| Hungarian..... | 2 | | | | | | | | | | | | | 2 |
| Italian..... | 39 | | 1 | | | | 1 | | | 1 | | | | 42 |
| Icelander..... | 2 | | | | | | | | | | | | | 2 |
| Lithuanian..... | 3 | | | | | | | | | | | | | 3 |
| Maltese..... | 1 | | | | | | | | | | | | | 1 |
| Norwegian..... | 2 | | | | | 1 | | 1 | 1 | | 1 | | | 6 |
| Pole..... | 21 | 5 | | | | | | | | | | | | 26 |
| Persian..... | 1 | | | | | | | | | | | | | 1 |
| Russian..... | 89 | 1 | | 2 | 1 | | | | | | 3 | | 1 | 97 |
| Roumanian..... | 2 | | | | | | | | | | | | | 2 |
| Syrian..... | 56 | | | | | | | | | | | | | 56 |
| Scotch..... | 1 | | | | | | | | | | | 1 | | 1 |
| Turk..... | 5 | | | | | | | | | | | | | 5 |
| Buckowinian..... | 1 | | | | | | | | | | | | | 1 |
| English..... | 1 | | 1 | | | | | | | | | | | 1 |
| Welsh..... | 1 | | | | | | | | | | | | | 1 |
| Dane..... | 1 | | | | | | | 1 | | | | | | 1 |
| Totals..... | 275 | 8 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 4 | 1 | 1 | 300 |

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TABLE VIII.—Statement showing the total Immigrants detained and total deported, compared with the total transported by the different Steamship Companies during the year 1903-1904.

| Steamship Companies. | Port. | No. of Pas- sengers. | Nationality. | Destination. | Male. | Female. | Deported. | Disease. | Released. | Escaped. | Accompany- ing. | Died. |
|-------------------------|--------------|-------------------------|--------------------------|-----------------------|-------|---------|-----------|---------------|-----------|----------|--------------------|-------|
| Allan S.S. Company..... | Halifax..... | 15,832 | Norwegian..... | Ontario..... | 1 | 2 | ..... | Trachoma..... | 3 | ..... | 1 | ..... |
| " | " | " | " | Nova Scotia..... | 3 | ..... | ..... | " | 3 | ..... | ..... | ..... |
| " | " | " | " | United States..... | 7 | ..... | ..... | " | 6 | ..... | ..... | ..... |
| " | " | " | Russian..... | Man. & N.W.T..... | 9 | 2 | 1 | " | 11 | ..... | ..... | ..... |
| " | " | " | " | Quebec..... | 4 | ..... | ..... | " | 4 | ..... | ..... | ..... |
| " | " | " | " | Ontario..... | 2 | ..... | ..... | " | 2 | ..... | ..... | ..... |
| " | " | " | " | Nova Scotia..... | 4 | ..... | 1 | " | 2 | ..... | ..... | ..... |
| " | " | " | " | United States..... | 4 | ..... | ..... | " | 4 | ..... | ..... | ..... |
| " | " | " | Russian Jews..... | Man. & N.W.T..... | 5 | 4 | ..... | " | 9 | ..... | 1 | ..... |
| " | " | " | " | Quebec..... | 4 | 1 | 1 | " | 4 | ..... | ..... | ..... |
| " | " | " | " | Ontario..... | 2 | ..... | ..... | " | 3 | ..... | ..... | ..... |
| " | " | " | " | Nova Scotia..... | 1 | ..... | ..... | " | 1 | ..... | ..... | ..... |
| " | " | " | " | United States..... | 4 | ..... | ..... | " | 4 | ..... | ..... | ..... |
| " | " | " | " | Man. & N.W.T..... | 1 | ..... | ..... | " | 1 | ..... | ..... | ..... |
| " | " | " | Russian German..... | Ontario..... | 1 | ..... | ..... | " | 1 | ..... | ..... | ..... |
| " | " | " | " | Quebec..... | 1 | ..... | ..... | " | 1 | ..... | ..... | ..... |
| " | " | " | Russian Poles..... | Ontario..... | 1 | ..... | ..... | " | 1 | ..... | ..... | ..... |
| " | " | " | " | Nova Scotia..... | 5 | ..... | ..... | " | 5 | ..... | ..... | ..... |
| " | " | " | " | New Brunswick..... | 4 | 2 | ..... | " | 6 | ..... | ..... | ..... |
| " | " | " | " | United States..... | 1 | ..... | ..... | " | 1 | ..... | ..... | ..... |
| " | " | " | Russian Finn..... | Man. & N.W.T..... | 3 | ..... | 1 | " | 3 | ..... | ..... | ..... |
| " | " | " | Russian Lithuanians..... | Quebec..... | 1 | ..... | ..... | " | 7 | ..... | ..... | ..... |
| " | " | " | Austrians..... | Nova Scotia..... | 3 | 3 | 1 | " | 2 | ..... | 1 | ..... |
| " | " | " | " | Quebec..... | 3 | ..... | ..... | " | 5 | ..... | ..... | ..... |
| " | " | " | Austrian Jew..... | Quebec..... | 1 | ..... | ..... | " | 1 | ..... | ..... | ..... |
| " | " | " | Austrian German..... | United States..... | 1 | ..... | 1 | " | ..... | ..... | ..... | ..... |
| " | " | " | German..... | Man. & N.W.T..... | 13 | 9 | ..... | " | 22 | ..... | 1 | ..... |
| " | " | " | " | Quebec..... | 2 | ..... | ..... | " | 1 | ..... | ..... | ..... |
| " | " | " | " | Nova Scotia..... | 3 | ..... | ..... | " | 2 | ..... | ..... | ..... |
| " | " | " | " | United States..... | 3 | ..... | 1 | " | 1 | ..... | ..... | ..... |
| " | " | " | German Dane..... | Man. & N.W.T..... | 2 | ..... | ..... | " | 2 | ..... | ..... | ..... |
| " | " | " | Finnish..... | Quebec..... | 0 | 3 | ..... | " | 3 | ..... | ..... | ..... |
| " | " | " | " | Ontario..... | 2 | ..... | ..... | " | 2 | ..... | ..... | ..... |
| " | " | " | " | Nova Scotia..... | 9 | 2 | | " | 11 | | 1 | |
| " | " | " | " | British Columbia..... | 1 | | | " | 1 | | | |
| " | " | " | " | United States..... | 1 | 5 | | " | 2 | | | |
| " | " | " | " | Man. & N.W.T..... | 7 | 6 | | " | 12 | | | |
| " | " | " | Danes..... | Man. & N.W.T..... | 5 | | | " | 11 | | | |

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TABLE VIII.—Statement showing the total Immigrants detained and total deported, &c.—Continued.

| Steamship Company. | Port. | No. of Passengers. | Nationality. | Destination. | Male. | Female. | Deported. | Disease. | Released. | Escaped. | Accompanying. | Died. |
|--------------------------------|-----------|--------------------|---------------|-------------------|-------|---------|-----------|--------------|-----------|----------|---------------|-------|
| Allan SS. Company— <i>Con.</i> | Quebec. | | English. | United States. | 1 | | | Tabes. | 1 | | | |
| " | " | | English Jew. | Quebec. | 1 | | | Trachoma. | 1 | | | |
| " | " | | Greek. | " | 1 | | | " | 1 | | | |
| " | " | | Romanian. | " | 2 | | | " | 2 | | | |
| " | " | | Galician. | " | 2 | | | " | 3 | | 1 | |
| " | " | | Scotchman. | Manitoba. | 1 | 1 | | " | 1 | | | |
| " | " | | Irishman. | Quebec. | 1 | | | Gland fever. | 1 | | | |
| " | " | | Welshman. | Ontario. | 1 | | | Trachoma. | 1 | | | |
| " | " | | Icelandic. | Manitoba. | 1 | 2 | | " | 2 | | | |
| " | " | | Dane. | United States. | 1 | | | " | 1 | | | |
| " | St. John. | 1,313 | Russian. | Manitoba & N.W.T. | 8 | 10 | 1 | " | 17 | | 6 | |
| " | " | | " | United States. | 1 | | 1 | " | 1 | | | |
| " | " | | Finns. | Ontario. | 1 | 1 | | " | 2 | | | |
| " | " | | " | N.W. Territories. | 1 | | | " | 1 | | | |
| " | " | | " | United States. | 1 | 1 | | " | 1 | | | |
| " | " | | Arab. | Manitoba. | 1 | 2 | | " | 3 | | | |
| " | " | | " | Quebec. | 1 | | | " | 1 | | | |
| " | " | | Bukowinian. | New Brunswick. | 1 | | 1 | " | 1 | | | |
| Totals. | | 43,562 | | | 308 | 96 | 39 | | 362 | 1 | 17 | 2 |
| Dominion SS. Company | Halifax. | | Russian Pole. | Quebec. | 2 | | | Trachoma. | 1 | | | |
| " | " | 3,476 | " | Ontario. | 2 | | 1 | " | 2 | | | |
| " | " | | Russians. | Manitoba. | 3 | | | " | 3 | | | |
| " | " | | " | Quebec. | 6 | 1 | 1 | " | 6 | | | |
| " | " | | " | Ontario. | 2 | | | " | 2 | | | |
| " | " | | " | Nova Scotia. | 3 | 1 | | " | 2 | | | |
| " | " | | Russian Jew. | Quebec. | 5 | 2 | | " | 7 | | 2 | |
| " | " | | " | Nova Scotia. | 3 | | | " | 4 | | | |
| " | " | | " | Manitoba & N.W.T. | 1 | | | " | 3 | | | |
| " | " | | Swedes. | Quebec. | 1 | 1 | | " | 1 | | | |
| " | " | | " | Ontario. | 1 | | | " | 1 | | | |
| " | " | | " | New Brunswick. | 2 | | | " | 2 | | | |
| " | " | | " | Nova Scotia. | 1 | 4 | | " | 1 | | | |
| " | " | | " | United States. | 1 | | | " | 5 | | | |
| " | " | | " | Manitoba. | 7 | | | " | 1 | | | |
| " | " | | English. | Quebec. | 1 | | | " | 1 | | | |
| " | " | | English Jew. | " | 1 | | 1 | " | 1 | | | |
| " | " | | Irish. | Manitoba. | 2 | | | " | 2 | | | |

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TABLE XIII.—Statement showing the total immigrants detained and total deported, &c.—Continued.

| Steamship Companies. | Port. | No. of Passengers. | Nationality. | Destination. | Male. | Female. | Deported. | Disease. | Released. | Escaped. | Accompanying. | Died. |
|----------------------------|--------------|--------------------|-----------------|--------------|-------|---------|-----------|---|-----------|----------|---------------|-------|
| C.P.R. S.S. Co.—Continued. | Halifax—Con. | | | | | | | | | | | |
| " | Quebec. | 17,960 | Swedes. | Quebec. | 2 | | | | 24 | | | |
| " | " | | Russians | Manitoba. | 17 | 11 | 4 | " | 12 | 1 | | |
| " | " | | " | Ontario. | 13 | | | " | 63 | | | |
| " | " | | " | Quebec. | 58 | 16 | 11 | " | 67 | | 2 | |
| " | " | | " | S.A. | 71 | 30 | 34 | Trachoma, L.P.C., cataract, tacky cartilage, deaf and dumb-favus (4) senility & debility, poor physique, public charge (1) tuberculosis | | | | |
| " | " | | Russian German. | Manitoba. | 5 | 4 | | Trachoma | 9 | | | |
| " | " | | Germans | " | 2 | | | " | 2 | | | |
| " | " | | " | Quebec. | 4 | 1 | | " | 15 | | | |
| " | " | | " | Ontario. | 1 | | | " | 1 | | | |
| " | " | | " | U.S.A. | 2 | | | " | 2 | | | |
| " | " | | Austrians | Manitoba | 3 | | | " | 3 | | | |
| " | " | | " | Quebec. | 6 | | | " | 6 | | | |
| " | " | | " | Ontario. | 1 | | | " | 1 | | | |
| " | " | | " | U.S.A. | 1 | | | " | 1 | | | |
| " | " | | Galician. | Quebec. | 9 | 2 | 1 | " | 10 | | | |
| " | " | | " | Ontario | 1 | | | " | 1 | | | |
| " | " | | " | Manitoba. | 17 | 3 | | " | 20 | | | |
| " | " | | Swede. | " | 3 | | 1 | " | 2 | | | |
| " | " | | " | Quebec. | 3 | | | " | 3 | | | |
| " | " | | " | U.S.A. | 1 | | | " | 1 | | | |
| " | " | | Roumanian. | Quebec. | 15 | 1 | 6 | " | 10 | 9 | | |
| " | " | | " | Ontario | 4 | | 1 | " | 4 | | | |
| " | " | | " | Manitoba | 2 | 2 | | " | 4 | | | |
| " | " | | Syrian. | Quebec. | 7 | | 3 | " | 4 | | | |
| " | " | | " | U.S.A. | 8 | | 8 | " | | | | |
| " | " | | Italian. | Quebec. | 46 | | 7 | " | 37 | 2 | | |
| " | " | | " | " | | | | (1) Tabes (1) Tonsil. Trachoma. | | | | |
| " | " | | " | Ontario. | 1 | | 1 | " | 2 | 4 | | |
| " | " | | " | U.S.A. | 1 | | | " | 1 | | | |
| " | " | | Hungarian | Quebec. | 4 | | | " | 4 | | | |
| " | " | | " | U.S.A. | 1 | | | " | 2 | | | |
| " | " | | Belgian | Ontario. | 1 | 1 | | " | 1 | | | |
| " | " | | " | Manitoba. | 1 | | | " | 1 | | | |

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| | | | | |
|-----------|---------------|---------------|----|--|
| " | Turk. | U. S. A. | 1 | 1 |
| " | Pole | Quebec. | 9 | " |
| " | " | Ontario. | 3 | " |
| " | " | Manitoba | 5 | " |
| " | Finn | U. S. A. | 7 | (1) Blind. Trachoma. |
| " | " | Ontario. | 3 | " |
| " | " | U. S. A. | 3 | " |
| " | Norwegian | Manitoba. | 1 | (1) Insane. Trachoma. |
| " | Arabian | U. S. A. | 3 | " |
| " | Dane | Quebec. | 3 | " |
| " | " | U. S. A. | 3 | " |
| " | Armenian. | " | 3 | " |
| " | Bulgarian. | Quebec. | 2 | " |
| " | English | Canada. | 1 | " |
| " | " | U. S. A. | 2 | Insane. Trachoma. |
| " | Swiss. | Quebec | 1 | " |
| " | Rukowinian. | N. W. T. | 1 | " |
| St. John. | Greek. | Quebec. | 1 | " |
| " | " | Ontario. | 1 | " |
| " | " | U. S. A. | 1 | " |
| " | Danes | N. Brunswick. | 1 | " |
| " | Austrians | Ontario. | 1 | " |
| " | " | Manitoba | 1 | " |
| " | " | Quebec. | 1 | " |
| " | " | N. W. T. | 3 | " |
| " | Russians. | N. Brunswick. | 5 | (1) Favus, trachoma (1) |
| " | " | Ontario. | 3 | Favus, trachoma. |
| " | " | Quebec | 4 | " |
| " | " | Manitoba | 20 | " |
| " | " | U. S. A. | 69 | " |
| " | Russian Poles | Quebec. | 1 | Favus, trachoma. Senility & debility Trachoma. |
| " | " | N. Brunswick. | 2 | " |
| " | " | Manitoba. | 2 | " |
| " | " | Ontario. | 4 | " |
| " | Poles. | N. Brunswick. | 1 | " |
| " | " | Quebec. | 1 | " |
| " | " | Manitoba | 8 | " |
| " | " | Nova Scotia. | 2 | " |
| " | " | U. S. A. | 9 | " |
| " | Italians | E. Columbia. | 3 | " |
| " | " | Nova Scotia. | 2 | " |
| " | " | N. Brunswick. | 3 | " |
| " | " | " | 3 | (1) Favus. |

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TABLE VIII.—Statement showing the total Immigrants detained and total deported, &c.—Continued.

| Steamship Companies. | Port. | No. of Passengers. | Nationality. | Destination. | Male. | Female. | Deported. | Disease. | Released. | Escaped. | Accompanying. | Died. |
|----------------------------|---------------|--------------------|--------------|---------------|-------|---------|-----------|--------------------------|-----------|----------|---------------|-------|
| C.P.R. S.S. Co.—Continued. | St. John—Con. | | Italians | Quebec. | 19 | | | Trachoma | 19 | | | |
| " | " | | " | Ontario. | 4 | | | (2) Pneumonia. | 4 | | | |
| " | " | | " | Manitoba. | 2 | | | (1) Favus. | 2 | | | |
| " | " | | " | U. S. A. | 3 | | | Trachoma. | 3 | | | |
| " | " | | Roumanian | Ontario | 1 | | | Trachoma | 1 | | | |
| " | " | | " | Quebec. | 13 | 6 | 1 | (1) Senility & debility. | 18 | | 7 | |
| " | " | | Galicians. | " | 2 | | | Trachoma | 2 | | | |
| " | " | | " | Ontario | 2 | | | " | 2 | | | |
| " | " | | " | New Brunswick | 2 | | | " | 1 | | | |
| " | " | | " | N.W.T. | 18 | | 1 | " | 13 | | | |
| " | " | | Finnish | Ontario | 1 | | 5 | " | 1 | | | |
| " | " | | Germans | Quebec. | 1 | | | " | 1 | | | |
| " | " | | " | N.W.T. | 4 | 3 | 4 | " | 1 | | | |
| " | " | | Armenians | Ontario | 1 | | | (2) Pneumonia. | 3 | | 2 | |
| " | " | | Hungarian | Quebec. | 1 | | | Trachoma | 1 | | | |
| " | " | | " | Manitoba. | 1 | | 1 | " | | | | |
| " | " | | Rukowinians | Quebec. | 3 | 1 | | " | 1 | | 1 | |
| " | " | | " | Manitoba. | 2 | | 1 | " | 4 | | | |
| " | " | | Swedes | " | 1 | | | " | 1 | | | |
| " | " | | English | " | 2 | | | " | 1 | | | |
| " | " | | Syrians | Quebec. | 1 | | 1 | Gout & debility | 1 | | | |
| " | " | | French | Manitoba. | 1 | | 1 | General debility | 1 | | | |
| " | " | | Flemish | " | 1 | | | Pneumonia | 1 | | | |
| " | " | | Hollander | N.W.T. | 1 | | | " | 1 | | | |
| Total. | | 29,447 | | | 598 | 136 | 142 | | 581 | 7 | 34 | |
| Hamburg-American Line. | Halifax. | 8,434 | Galician. | Man. & N.W.T. | 144 | 84 | 9 | (1) Erysipelas. | 216 | 2 | 23 | 1 |
| " | " | | " | Quebec. | 16 | 4 | 1 | Trachoma. | 19 | | | |
| " | " | | " | Ontario | 4 | | | " | 4 | | | |
| " | " | | " | Nova Scotia | 6 | | 1 | " | 5 | | | |
| " | " | | " | United States | 1 | | | " | 1 | | | |
| " | " | | Buckwinian | Man. & N.W.T. | 3 | | | " | 3 | | | |
| " | " | | " | Quebec. | 1 | | | " | 1 | | | |

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There has been given in table I. the number of immigrants entering Canada via Montreal. This number, though small compared with those at other ports, is nevertheless of importance, inasmuch as it marks the development towards Canada from the United States of an immigration movement likely to rapidly increase. The latter includes immigrants destined for Canada from European seaports via United States ports of entry, and also persons either United States citizens or others resident there. Since 1903 a medical inspector has been located in Montreal, who takes charge of any immigrants arriving there and requiring attention. Though the facilities for his work have been imperfect, yet a considerable amount of work has been performed, since it has been found that in spite of inspection by officers at the United States ports of entry, a number of immigrants have been found suffering from acute contagious diseases on arrival at Montreal, while amongst those previously from the United States others have not infrequently been found similarly suffering. It would seem both desirable and necessary that this port be fully equipped, not only with sufficient officers to systematize the inspection of all immigrants either before their entrance into Canada at the boundary or at Montreal, by arrangements to be made with the several railroad companies for facilitating inspection, and by providing a detention building wherein immigrants for whatever cause may be detained. The lack of such has made it necessary for the medical officer to utilize whatever premises were obtainable, while in many cases immigrants whose supervision was necessary were wholly lost sight of. Such a building is further required for the temporary detention of persons who have been returned from the inland places for deportation as undesirable immigrants, as Montreal is the most convenient port for the purpose during the greater portion of the year. This is illustrated in table IX., which gives the deportations of persons who have been admitted to Canada.

Having thus set forth in brief the general procedure of the medical inspection at ports of entry to Canada, it will be proper to examine the results of the work done at the several ports of entry.

The total number of immigrants entering Canada by the several Atlantic ports has already been given as seen in table I., and it will now be proper to refer to the total immigrants detained out of this number. For purposes of comparison, the following table has been prepared, showing the number of immigrants carried by the several steamship companies to the several ports of entry. It will be found of interest as illustrating the care exercised by the several companies in the selection of immigrants, whether as regards their nationality or their individual fitness for entry to Canada.

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TABLE X.—Showing the number of immigrants by nationality, where it is given and total number detained for treatment.

| Nationalities. | Number of Immigrants. | Allan SS. Co. | Dom. SS. Co. | Can. Pacific SS. Co. | Hamburg-Am. SS. Co. | Franco-Can. SS. Co. | Can. Lines, Ltd. SS. Co. | Total |
|--------------------|-----------------------|---------------|--------------|----------------------|---------------------|---------------------|--------------------------|-------|
| Austrian..... | 516 | 22 | 4 | 18 | 14 | | | 58 |
| Bohemian..... | 91 | | | | 1 | | | 1 |
| Bukowinian..... | 1,578 | 1 | 1 | 7 | 6 | | | 15 |
| Galician..... | 7,729 | 4 | 1 | 56 | 264 | | | 325 |
| Hungarian..... | 1,091 | | | 8 | 20 | | | 28 |
| Slovak..... | 116 | | | | 1 | | | 1 |
| Belgian..... | 858 | 2 | | 2 | | | | 4 |
| Bulgarian..... | 14 | | | 1 | | | | 1 |
| French..... | 1,534 | | 4 | 1 | | 4 | | 9 |
| Hebrew (Eng.)..... | | 1 | 1 | | | | | 2 |
| Russian Jew..... | 5,247 | 22 | 10 | | 4 | | | 36 |
| Polish..... | 174 | 1 | | | | | | 1 |
| Austrian "..... | 893 | 1 | | | | | | 1 |
| German "..... | 103 | | | | | | | |
| Turkish "..... | | | 1 | | | | | 1 |
| Italian..... | 4,445 | 7 | 4 | 91 | 6 | | 2 | 110 |
| Polish..... | 669 | 13 | 7 | 50 | 5 | | 6 | 81 |
| Persian..... | 5 | | 1 | | | | | 1 |
| Roumanian..... | 619 | 4 | 1 | 45 | | | 1 | 51 |
| Russian..... | 1,955 | 90 | 74 | 336 | 39 | | 33 | 593 |
| " German..... | | 2 | | 9 | 14 | | | 25 |
| " Poles..... | | 13 | 4 | 13 | 3 | | | 33 |
| " Lithuanian..... | | 4 | | | | | | 4 |
| Finnish..... | 845 | 51 | 10 | 7 | | | | 68 |
| Spanish..... | 5 | | 1 | | | | | 1 |
| Swiss..... | 128 | 1 | | 1 | | | | 2 |
| Servian..... | 10 | | | | 1 | | | 1 |
| Danish..... | 417 | 17 | 1 | 4 | | | | 22 |
| Icelandic..... | 396 | 3 | | | | | | 3 |
| Swedish..... | 2,151 | 26 | 19 | 12 | | | | 57 |
| Norwegian..... | 1,239 | 22 | 11 | 4 | | | | 37 |
| Turkish..... | 29 | | | 1 | | | | 6 |
| Armenian..... | 81 | 16 | 10 | 6 | | 2 | 3 | 32 |
| Syrian..... | 347 | 14 | | 16 | 5 | 41 | 19 | 95 |
| Arabian..... | 52 | 4 | 2 | 3 | | | | 9 |
| Maltese..... | 1 | | | | | | 1 | 1 |
| Flemish..... | | | | 1 | | | | 1 |
| English..... | 36,694 | 25 | 1 | 5 | | | | 31 |
| Irish..... | 3,128 | 1 | 2 | | | | | 3 |
| Scotch..... | 10,552 | 1 | 1 | | | | | 2 |
| Welsh..... | | 1 | | | | | | 1 |
| Anglo-Indian..... | | 1 | | | | | | 1 |
| German..... | 2,966 | 32 | 10 | 16 | 15 | | | 75 |
| Greek..... | 191 | 2 | 8 | 3 | | 2 | | 15 |
| Hollander..... | | | | 1 | 1 | | | 2 |
| | 86,869 | 404 | 189 | 740 | 399 | 49 | 65 | 1,825 |

Apart from the distribution of detained cases carried by the different steamships, the greater interest attaches to the proportion of cases detained to the total immigration of the different nationalities. The fact that Canada is following the United States in becoming the home of the most diverse nationalities is illustrated in the accompanying table. That these vary in the prevalence amongst them of disease, especially of eye disease, is very apparent. Remarkably few indeed of English speaking people were detained, only 35 out of 50,374; while of the group of Syrians and allied races from southern Europe and Asia, 150 were detained out of a total of 510. Of the peoples from northern Europe the Russian group show by far the largest number of detentions, there having been 624 in a total of 1,955. These figures as indicating a special prevalence of disease in Russians are misleading since it is found that the

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large proportion of those detained in hospital as seen in the tables of the Quebec Immigration Hospital are Jewish people speaking Russian. As there were 5,247 Russian Jews recorded on the shipping manifests, it is evident that the hospital returns have in many instances returned patients as Russian, instead of Russian Jews. There was a very considerable number of Galicians detained, 327 in 7,729, proportionately more than of Italians, of whom 110 in 4,445 were detained.

The ratios for these several groups are as follows :—

British immigrants detained, 1 in 1,325 persons, Italians, 1 in 40 persons, Russian and Russian Jews, 1 in 11.6 persons, Syrians and allied races, 1 in 3.4 persons.

The total persons detained was 1,839 in 99,741 immigrants landing at the three ports of Quebec, Halifax and St. John, or 1 in every 52.

The causes for which these 1,839 persons were detained are indicated in table VIII. The one special cause was trachoma, or the chronic form of ophthalmia, prevalent in the poorer classes of the races referred to.

Regarding trachoma Dr. J. Boldt, of the German army, in a work just translated says: 'Thus the affection when it became epidemic in northern Europe at the beginning of the last century was termed "Egyptian ophthalmia," because it was disseminated by soldiers who had acquired it in that country. It was, however, at that time and is now equally endemic in other countries besides Egypt—for example Syria, Persia, Central Asia, China and Japan.'

This writer also remarks: 'Russia takes the first place amongst European countries affected with trachoma.' 'S. Kribitzky states that, of the extremely large number of cases of blindness amongst the Russian soldiers in the Russo-Turkish war of 1877-8 only 5 per cent were due to wounds, the remainder being caused by contagious eye diseases, chiefly trachoma. He recognized the extraordinary prevalence of blindness throughout the country and directed the attention of the public to it.'

'In Finland trachoma is very prevalent; indeed Herschberg states that it has more cases than any other country in northern Europe. From 1886 to 1897, 31.5 per thousand of the conscripts in Finland were exempted on account of eye disease, especially trachoma and its sequelae.'

'In Sweden trachoma is the cause of only 0.85 per cent of all cases of blindness, whilst in Finland it is answerable for 30 per cent.'

'The blind in Finland amount to 15.5 per cent according to Herschberg, 219 per 10,000 of the population, whilst in the neighbouring countries Sweden, Norway and Denmark, the numbers are 8.3, 12.8 and 5.3 respectively.'

Such quotations are sufficient to indicate the contagious nature of trachoma, and the peoples of Europe amongst whom it has become so wide-spread. The statistics in the preceding tables abundantly prove that the disease is still prevalent amongst them. The following remark accompanying a statement of the disease spread from Russia through navvies on the Trans-Siberian railroad is of much importance in view of the large numbers of men employed on similar work in Canada, many of whom are these foreign workmen :—

'The worst victims of trachoma in Siberia are people who have migrated from Russia bringing the disease with them. The spread of the disease is favoured by the bad sanitary conditions which prevail, and it rapidly spreads among the native population. The number and severity of the cases keep pace with the unfavourable material, educational and sanitary conditions.'

From the history, as well as the character, of the disease, as being due to its specific germ or microbe, it is apparent that the migration of these people to America, bringing with them their own customs and habits of life, becomes a matter of importance and demands just such action in the interests of the public as it is shown has been taken at the Canadian ports of entry.

That a serious view is taken of this disease by those countries contiguous to affected centres is proved by the measures taken by Prussia in dealing with the large

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gangs of Polish agricultural labourers, who cross the frontier every summer, to help in the harvest, returning home every autumn. Dr. Boldt says: 'As soon as they enter the country they are submitted to a medical examination at the employer's expense, and in 1899 special attention was drawn to the necessity for examining them for trachoma. If such measures are strictly carried out, the contractors will find it to their interest to import as few trachomatous ones as possible.'

Other diseases for which persons were detained are few. It is evident that there are diseases, such as epilepsy, insanity, incipient tuberculosis, all of the greatest importance, yet of which cases, in the necessarily rapid examination of the hundreds coming off a vessel, will not infrequently pass unrecognized. That there are not more of these, if the following table is to be taken as a fair index of their number, would seem to show that care has been exercised in the selection of those emigrants given passage by the steamship companies.

TABLE XI.—Showing number, nationality, cause, and port whence deported, of Immigrants who have been admitted into Canada during the year ending June 30, 1904.

| No. | Nationality. | Total. | Cause. | Total. | Port whence deported. | Total. |
|-----|----------------|--------|---|--------|-----------------------|--------|
| 1 | British..... | 66 | Consumption..... | 9 | Montreal..... | 11 |
| | | | Tuberculosis..... | 1 | Toronto..... | 1 |
| | | | Harmoptysis..... | 1 | Ottawa..... | 1 |
| | | | Chronic bronchitis..... | 1 | Winnipeg..... | 54 |
| | | | Physical infirmity..... | 11 | | |
| | | | Rheumatism..... | 7 | | |
| | | | Rheumatism and heart disease..... | 2 | | |
| | | | Imbecile..... | 1 | | |
| | | | Insane..... | 11 | | |
| | | | Mental infirmity..... | 10 | | |
| | | | Epilepsy..... | 4 | | |
| | | | Chronic diarrhoea..... | 1 | | |
| | | | Cripple..... | 1 | | |
| | | | Broken Back..... | 1 | | |
| | | | Fingers lost by freezing..... | 1 | | |
| | | | Hernia..... | 1 | | |
| | | | Varicose ulcers..... | 1 | | |
| | | | Going blind..... | 1 | | |
| | | | Nurse accompanying insane..... | 1 | | |
| 2 | Norwegian..... | 3 | Tuberculosis..... | 1 | Montreal..... | 3 |
| | | | Physical infirmity..... | 1 | | |
| | | | Invalid..... | 1 | | |
| 3 | Finnish..... | 4 | Mental infirmity..... | 1 | Winnipeg..... | 4 |
| | | | Family returned with father not admitted..... | 3 | | |
| 4 | Italian..... | 3 | Mental infirmity..... | 1 | Montreal..... | 3 |
| | | | Consumption..... | 1 | | |
| | | | Cripple..... | 1 | | |
| 5 | Swedish..... | 5 | Consumption..... | 3 | | 5 |
| | | | Accompanying parents..... | 2 | | |
| 6 | Danish..... | 1 | Syphilis..... | 1 | Montreal..... | 1 |
| 7 | Russian..... | 1 | Old age..... | 1 | | |
| 8 | German..... | 1 | Melancholia..... | 1 | Winnipeg..... | 1 |
| 9 | Roumanian..... | 1 | Old age..... | 1 | Montreal..... | 1 |
| | | 85 | | 85 | | 85 |

The contents of this table are of interest since they point quite clearly to the relatively high proportion of British immigrants that have been deported either under the order of a medical inspector, or who after residence in hospital at some point and after evidence of their inability to make a living owing to physical disease have at their

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own request been returned home. In the statistics in table X. the relative number of British deported, compared with those of other nationalities, is given. From these figures conclusions unfavourable to the physical stamina and mental soundness of British immigrants, as compared with those from other countries might perhaps at first sight be drawn; but this would, for several reasons, be misleading. For a century the poor law unions and the many charitable institutions, especially of England, have taught the people there to resort, when ill, to these institutions as a matter of course, and hence when such immigrants in a new land have as yet no permanent abode they naturally would return to the immigration agency and hospital to claim that assistance to which they have been accustomed. Persons from continental countries have not, in the same degree, been accustomed to such charities; they do not know the routine method of obtaining such assistance, are more largely engaged in pursuits outside the cities and towns, and besides are more accustomed to a ruder and less humane social life, and are more content to bear patiently with their ills, either physical or social.

At the same time, when it is remembered that the proportion of urban to rural population in England is as 78 to 22 per cent, it is evident that amongst those emigrating to Canada from the English cities, there will always be a number of persons who, unaccustomed to the demands of pioneer life in the rural districts of new countries, apart from physical disease, will prove unequal to the task. That the actual number deported is so small, notwithstanding this fact, would seem to be the most convincing argument both as to the generally high class of British immigrants coming to Canada and the favourable results of their first year's experience in the country.

The nature of the particular disease from which these deported persons suffered compares generally with what the persons going to the out-door clinics of any large hospital in England and America suffer from. Those suffering from consumption and other tubercular diseases are very few compared with the 104,119 immigrants entered by the seaports during the year, and are several times less per 1,000 than they would be in a similar number of the resident Canadian population.

The only diseases of importance, other than tubercular, were mental diseases, there having been 26 cases of this class. It will be apparent that cases of this class will inevitably from time to time escape detection owing to the peculiarly chronic nature of nervous diseases and the little likelihood of their being discovered, if in the quiescent stage, in the necessarily short and imperfect examination at the ports of entry. In addition to this, it must be remembered that absence from home and the new experiences of life in a strange land will tend to develop these diseases in persons with a tendency to such mental disturbances.

A third term, 'physical infirmity,' for which cause a number were deported, is manifestly unscientific, and yet perhaps as well as any other expresses the situation. Here and everywhere will always be found a number of persons, perhaps indifferent physically at birth who through the environment of childhood and the habits of adult life, are 'incapables'; they simply have what the expression implies.

From the few cripples, blind and old persons deported it is apparent that the knowledge on the part of the steamship companies that a strict inspection exists at the ports of entry, prevents persons of this class from being permitted to take passage on the steamships.

There is in addition to these two classes of detained and deported immigrants, another class which the inspection service has under its constant attention, and which in some parts of the country has been a charge upon the department. Of course, the great proportion of immigrants arriving at Winnipeg was distributed through the twenty or more sub-agencies in different parts of Manitoba and the North-west Territories. In any similar population there will always be an average of cases of sickness, and hence it has naturally happened that of this large number individuals who have taken sick, whether in city or country and were without homes, and sometimes means, have been sent to the local hospitals for treatment.

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In order to obtain an accurate idea of the extent of this class and the character of the diseases for which they were treated, a complete list of the immigrants treated in the General Hospital, Winnipeg, during January, February and March, 1904, was obtained. Below is the list of diseases treated.

TABLE XII.—Statement giving List of Diseases⁷ of Immigrants treated in Winnipeg General Hospital, January, February and March, 1904.

| Disease. | No. | Disease. | No. |
|------------------------------|-----|--------------------------|-----|
| Rheumatism | 19 | Dysmenorrhœa | 1 |
| Heart disease | 5 | Neurasthenia | 4 |
| Nephritis | 4 | Alcoholism | 3 |
| Tubercular adenitis | 1 | Stricture | 1 |
| Tubercular peritonitis | 1 | Urethritis | 1 |
| Phthisis | 2 | Pyuria | 1 |
| Fistula | 1 | Hydrocele | 1 |
| Mastoid abscess | 1 | Hernia | 1 |
| Adenoids | 1 | Syphilis | 2 |
| Pleurisy | 4 | Cataract | 1 |
| Asthma | 1 | Conjunctivitis | 1 |
| Bronchiectasis | 1 | Injury to eye | 2 |
| Pneumonia | 3 | Nasal polypus | 1 |
| Meningitis | 1 | Otitis media | 1 |
| Diphtheria | 14 | Frozen toes | 6 |
| Tonsilitis | 4 | Frozen finger | 1 |
| Influenza | 5 | Necrosis | 1 |
| Erysipelas | 2 | Knee injury | 1 |
| Typhoid | 24 | Back injury | 1 |
| Scarlet fever | 4 | Cellulitis of foot | 1 |
| Gastric ulcer | 3 | Injury to foot | 1 |
| Abdominal abscess | 1 | Injury to lip | 1 |
| Appendicitis | 4 | Ulcer of leg | 1 |
| Pelvic abscess | 1 | Injury to leg | 1 |
| Gastritis | 1 | Fracture of tibia | 1 |
| Intestinal indigestion | 1 | Fracture of femur | 1 |
| Gall stones | 1 | Lordosis of spine | 1 |
| Febriacula | 1 | Injury | 1 |
| Herpes | 1 | Scabies | 1 |
| Psoriasis | 1 | Tœnia tonsurans | 1 |
| Eczema | 1 | Tape worm | 1 |
| Pregnancy | 5 | Unnamed | 14 |
| | | Total | 176 |

A glance at this table serves to illustrate the very diverse but common nature of hospital cases. Of the 77 differently named affections for which the patients entered the hospital and of the 176 cases, the several acute contagious diseases form nearly one-third, typhoid and diphtheria having the most cases. Of the group of more chronic organic diseases, there are remarkably few cases, the 19 cases of rheumatism being in part acute and in part chronic, and associated with heart disease and kidney disease, while the tubercular group does not exceed 10 cases. As usual there is a number of diseases of the digestive organs and of the skin, but two cases only of the latter imported and communicable. Other cases, as female diseases, venereal diseases and injuries, serve to complete the group, excepting one or two diseases of the eye, of which only one was possibly trachoma.

These figures are a remarkable confirmation of the previous tables giving the list of persons detained or deported for specific diseases. In this civic centre, where not less, probably, than 10,000 immigrants had congregated for the winter, the hospital returns show but two cases of phthisis in three months, and but one of asthma and one of bronchiectasis, all or any of which may have been chronic. The chief diseases

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from which the immigrants suffered were those endemic in the community and not such as were introduced by them, but with which they were inoculated where they lived.

Brief reference may be made to the appearance of small-pox and other diseases which have appeared in immigrants who have passed the quarantines on entrance either to Canada or to the United States. The most serious instance was that where small-pox was discovered on an immigrant train which left Halifax on March 16, with passengers off the ss. 'Sardinian,' sailing from Glasgow on March 5. The victim presumably was exposed to infection in Glasgow, where he arrived on the 4th, and where small-pox prevailed. Though vaccinated in childhood, the evidence of the patient and of the seventeen immigrants quarantined on account of exposure to him all coincided, that not only was none of them vaccinated on shipboard, but further, the sick man's companion stated that the ship's physician did not visit the patient, who sickened two days before landing at Halifax. The fact that there is an interval of forty-eight hours between the onset of the disease and the appearance of the rash in small-pox, not only explains how the man passed the quarantine officer and the medical inspector of the service, but also places in strong relief the necessity for there being perfect assurance on the part of the quarantine officers that the vaccination of all second-class and steerage passengers within seven years has actually been performed. This fact could best be assured by examination, and where necessary re-vaccination, before passengers go on shipboard, since sea-sickness for the several earlier days on board makes a delay in the vaccination, which, hence, is valueless in preventing the appearance of the disease amongst the immigrants, and their conveying it to others en route to the west during a journey of five or six days.

In view, further, of the certainty that cases of this sort will in spite of precautions occasionally occur amongst west-bound immigrants, it seems desirable that at two or three points on the route west of North Bay small plots of ground be secured, with at least tents and their equipment kept on hand, in which the sick could at once be placed as soon as discovered, and maintained at the expense of those responsible for the cases. Though it has been assumed until within the past two years that an immigrant after passing the outer ports of entry was practically free from further supervision as regards his health, yet in practice it has been found that at Montreal and Winnipeg, especially, subsequent oversight must often be exercised by the medical officers of transients as well as those immigrants remaining in these centres. During the past year, a number of cases of measles and several of diphtheria and scarlet fever appeared in families of immigrants who passed the United States quarantine officers at New York and Boston and entered Canada via Montreal. Thus, on June 12 one family of six children arrived in New York suffering from measles; on June 18 there arrived from Boston two families, twelve children in all, of whom ten were affected with measles, and on June 25 a family of five children arrived from New York, also attacked with measles.

While it is apparent that these cases may occur en route from New York and Boston, yet the evidence in these several groups goes to show that some at least of the cases had occurred while on shipboard, and hence, such make apparent the need of a regular inspection of all immigrants entering Canada via United States ports, before they are allowed to mingle with the public at Montreal or at other ports of entry farther west. This work if not performed by quarantine officers must, as matters now stand, be performed by the medical inspectors of the immigration service in Montreal and at the expense of this department, since they cannot properly be left to the care and cost of the several municipalities where such cases happen to occur.

Your obedient servant,

P. H. BRYCE,

Chief Medical Officer.



DR. BARNARDO AND TWO OF HIS 'FAMILY.'



BARNARDO CANADIANS.



A PARTY OF ENGLISH CHILDREN RECEIVED AT MISS MACPHERSON'S HOME, STRATFORD, ONT.



LEFT ORPHANS' HOME, BRIDGE OF WEIR, SCOTLAND, 15th OCTOBER, 1904, ARRIVED AT "FAIRKNOWE," BROCKVILLE, ONT., 26th OCTOBER, 1904.

PART IV

NORTH-WEST REGISTRARS

REPORT OF THE REGISTRAR AT REGINA.

REGISTRATION DISTRICT OF ASSINIBOIA,
REGINA, July 25, 1904.

The Secretary,
Department of the Interior,
Ottawa.

SIR,—I respectfully beg to report as follows with regard to the work of the Land Titles Office for the Assiniboia Land Registration District for the year ending June 30, 1904.

The tabulated Statement No. 1, attached hereto, shows a respectable growing increase in the fees received in this office, and when compared with table giving fees taken since 1893 (see Statement No. 2 attached hereto) indicates that the past year has not only kept pace with previous ones; but, considering the reduction in fees consequent upon the late revision of the tariff, and the large and greatly increased quantity of 'free' work put through the books, is proportionately a much better year.

The free certificates of title issued on grants during the past year number 3,134.

Besides this free work a large and constantly increasing quantity of free work has been done for the North-west government, consisting principally of the issue of titles for roadways.

There have been 26 new town sites registered during the year and 28 additions to the existing town sites.

I have the honour to be, sir, your obedient servant,

F. F. FORBES,
Registrar.

STATEMENT No. 1.

| Year. | Fees. |
|----------------------|-----------|
| | \$ cts. |
| 1894 | 6,236 41 |
| 1895 | 5,167 74 |
| 1896 | 4,489 29 |
| 1897 | 5,339 55 |
| 1898 | 7,411 33 |
| 1899 | 9,275 55 |
| 1900 | 11,222 65 |
| 1901 | 18,893 55 |
| 1902 | |
| 1903 | 36,355 00 |
| 1904 (June 30) | 55,489 10 |

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STATEMENT No. 2.

Fees.

| Month. | For Certificates of Title. | Registration of Instruments | Searches, &c. | Other Services. | Total. |
|----------------|-------------------------------------|-----------------------------------|---------------|--------------------|-----------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 1903. | | | | | |
| July..... | 2,232 90 | 627 50 | 350 30 | 1,272 95 | 4,483 65 |
| August. | 1,981 25 | 669 25 | 241 90 | 1,022 35 | 3,914 75 |
| September..... | 1,674 10 | 586 25 | 334 70 | 993 45 | 3,588 50 |
| October..... | 1,623 15 | 562 00 | 305 25 | 963 10 | 3,453 50 |
| November..... | 1,979 55 | 702 00 | 377 95 | 990 95 | 4,050 45 |
| December..... | 1,974 45 | 1,096 10 | 496 75 | 1,159 55 | 4,726 85 |
| 1904. | | | | | |
| January..... | 2,112 70 | 911 25 | 440 60 | 1,314 00 | 4,778 55 |
| February..... | 2,047 35 | 924 50 | 460 80 | 1,138 55 | 4,571 20 |
| March..... | 2,510 95 | 1,033 00 | 481 90 | 1,689 85 | 5,715 70 |
| April..... | 2,414 30 | 925 75 | 426 30 | 1,543 85 | 5,310 20 |
| May..... | 2,689 15 | 898 50 | 436 00 | 1,512 00 | 5,544 65 |
| June..... | 2,385 00 | 926 50 | 498 45 | 1,541 15 | 5,351 10 |
| | 25,633 85 | 9,862 60 | 4,850 90 | 15,141 75 | 55,489 10 |

SESSIONAL PAPER No. 25

REPORT OF THE REGISTRAR AT BATTLEFORD.

LAND TITLES OFFICE, BATTLEFORD, September 8, 1904.

The Secretary,
Department of the Interior,
Ottawa.

SIR,—I have the honour to forward herewith a statement of the work done and fees collected at this office for the fiscal year 1903-4.

I have the honour to be, sir, your obedient servant,

R. F. CHISHOLM,
Registrar.

STATEMENT of Services Rendered and Fees Collected at Land Titles Office, Battleford, for the Year ending June 30, 1904.

| | Instruments Registered. | Free Certificates. | Total Certificates. | Assurance Fees. | Total Fees. |
|----------------|----------------------------|-----------------------|------------------------|--------------------|-------------|
| 1903. | | | | \$ cts. | \$ cts. |
| July..... | 12 | 7 | 11 | 4 30 | 22 30 |
| August..... | 6 | 2 | 3 | | 9 25 |
| September..... | 7 | 1 | 6 | 6 14 | 30 14 |
| October..... | 5 | 1 | 4 | 2 68 | 61 93 |
| November..... | 4 | | 2 | | 26 00 |
| December..... | 11 | 4 | 11 | 8 55 | 67 05 |
| 1904. | | | | | |
| January..... | 34 | 24 | 29 | 2 80 | 43 80 |
| February..... | 48 | 35 | 42 | 6 09 | 42 84 |
| March..... | 40 | 22 | 25 | 6 18 | 41 68 |
| April..... | 35 | 26 | 28 | 2 00 | 30 25 |
| May..... | 21 | 12 | 16 | 9 66 | 51 41 |
| June..... | 10 | 5 | 10 | 4 70 | 29 70 |
| Totals..... | 233 | 139 | 187 | 53 10 | 456 35 |

Certified correct,

R. F. CHISHOLM,
Registrar.

REPORT OF THE REGISTRAR AT EDMONTON.

REGISTRATION DISTRICT OF NORTH ALBERTA,
EDMONTON, N.W.T., August 1, 1904.

The Secretary,
Department of the Interior,
Ottawa.

SIR,—I have the honour herewith to inclose statement of all fees collected and work done in this office for the year ending June 30 last.

I have the honour to be, sir, your obedient servant,

GEO. ROY,
Registrar.

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STATEMENT showing number of Registrations and amount of Fees collected in the Land Titles Office for the North Alberta Land Registration District for the year ending June 30, 1904, and a comparison with the work done in the previous year.

| Month. | Number of Instruments Registered. | Total Number of Certificates Issued. | Number of Free Certificates Issued. | Amount of Assurance Fees. | Total Amount of Fees Collected. |
|--|-----------------------------------|--------------------------------------|-------------------------------------|---------------------------|---------------------------------|
| 1903. | | | | \$ cts. | \$ cts. |
| July..... | 675 | 476 | 191 | 472 85 | 2,113 60 |
| August..... | 499 | 305 | 83 | 314 00 | 1,625 50 |
| September..... | 636 | 384 | 67 | 340 70 | 2,133 70 |
| October..... | 736 | 488 | 237 | 322 55 | 1,725 80 |
| November..... | 686 | 429 | 166 | 356 55 | 1,845 80 |
| December..... | 848 | 509 | 231 | 485 53 | 2,203 03 |
| 1904. | | | | | |
| January..... | 768 | 462 | 217 | 383 80 | 1,960 65 |
| February..... | 833 | 573 | 333 | 383 70 | 1,765 45 |
| March..... | 838 | 401 | 119 | 447 55 | 2,216 70 |
| April..... | 745 | 411 | 103 | 534 90 | 2,307 65 |
| May..... | 601 | 310 | 45 | 463 90 | 2,070 10 |
| June..... | 681 | 377 | 132 | 434 70 | 1,962 30 |
| | 8,546 | 5,125 | 1,924 | 4,940 73 | 23,930 28 |
| Returns for 1902-1903..... | 7,422 | 3,928 | 1,326 | 4,201 10 | 20,849 90 |
| Increase in business over previous year..... | 1,124 | 1,197 | 598 | 739 63 | 3,080 08 |

REPORT OF THE REGISTRAR AT PRINCE ALBERT.

STATEMENT of Registrations; &c., Land Titles Office for East Saskatchewan Registration District.

| Year and Month. | Number of Instruments | Certificates issued Free. | Number of Certificates issued. | Assurance Fees. | Total Fees. |
|-----------------|-----------------------|---------------------------|--------------------------------|-----------------|-------------|
| 1903. | | | | \$ cts. | \$ cts. |
| July..... | 289 | 116 | 219 | 96 85 | 600 85 |
| August..... | 274 | 97 | 176 | 115 35 | 586 80 |
| September..... | 291 | 115 | 210 | 86 95 | 579 00 |
| October..... | 314 | 111 | 181 | 68 15 | 480 15 |
| November..... | 161 | 22 | 76 | 62 45 | 466 30 |
| December..... | 242 | 28 | 114 | 174 50 | 816 75 |
| 1904. | | | | | |
| January..... | 207 | 20 | 101 | 190 25 | 752 50 |
| February..... | 200 | 17 | 96 | 96 30 | 595 05 |
| March..... | 283 | 77 | 179 | 85 00 | 559 50 |
| April..... | 205 | 33 | 122 | 101 55 | 585 80 |
| May..... | 191 | 3 | 93 | 129 70 | 693 95 |
| June..... | 233 | 5 | 122 | 126 75 | 785 05 |
| Totals..... | 2,890 | 644 | 1,689 | 1,333 80 | 7,501 70 |

The total receipts for the year 1902-3 were \$6,131.90, showing an increase this year of \$1,369.80.

Your obedient servant,

S. BREWSTER,

Registrar.

SESSIONAL PAPER No. 25

REPORT OF THE REGISTRAR AT DAWSON.

LAND TITLES OFFICE,

DAWSON, Y.T., June 30, 1904.

REPORT made by J. E. Girouard, Registrar, of the Land Titles Office for the Yukon Land Registration District from the 1st day of July, 1903, to the 30th day of June, 1904.

| Year and Month. | No. Deeds Recorded. | No. Certificates of Title Issued. | INCOME. | | |
|-----------------|---------------------|-----------------------------------|----------|-----------------|----------|
| | | | Fees. | Assurance Fund. | Total. |
| | | | \$ cts. | \$ cts. | \$ cts. |
| 1903. | | | | | |
| July | 106 | 54 | 485 20 | 133 05 | 618 25 |
| August | 101 | 45 | 378 75 | 56 85 | 435 60 |
| September | 94 | 58 | 425 00 | 56 80 | 481 80 |
| October | 94 | 41 | 362 80 | 52 80 | 415 60 |
| November | 68 | 27 | 247 65 | 15 05 | 262 70 |
| December | 47 | 26 | 205 00 | 15 35 | 220 35 |
| 1904. | | | | | |
| January | 65 | 26 | 196 08 | 31 42 | 227 50 |
| February | 35 | 23 | 140 95 | 61 20 | 202 15 |
| March | 51 | 29 | 186 40 | 19 95 | 206 35 |
| April | 42 | 27 | 183 45 | 21 25 | 204 70 |
| May | 46 | 23 | 158 53 | 14 72 | 173 25 |
| June | 74 | 52 | 279 40 | 39 70 | 319 10 |
| Total | 823 | 431 | 3,249 21 | 518 14 | 3,767 35 |

J. E. GIROUARD,
Registrar.

REPORT OF THE REGISTRAR AT CALGARY.

REGISTRATION DISTRICT OF SOUTH ALBERTA,

CALGARY, N.W.T., July 16, 1904.

The Secretary,
Department of the Interior,
Ottawa.

SIR,—I beg to inclose the usual annual statement for the year ended June 30, 1904.

In comparing the returns for this period with that last preceding and other years, it should be noted that the present statement shows for the first time the results, for one completed year, under the new tariff, by which the fees payable by the public and by practitioners have been very materially reduced.

I have the honour to be, sir, your obedient servant,

W. ROLAND WINTER,
Registrar.

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SOUTH ALBERTA LAND REGISTRATION DISTRICT, CALGARY.

COMPARATIVE STATEMENT of Registrations, &c., in the Land Titles Office, South Alberta Land Registration District, Calgary, for the years, July 1, 1902, to June 30, 1903, and July 1, 1903, to June 30, 1904.

| Year and Month. | Number of Instruments Registered. | Free Certificates only. | Aggregate Num- ber of Certif- icates. | Assurance fees. | Total fees. | Year and Month. | Number of Instruments Registered. | Free Certificates only. | Aggregate Num- ber of Certif- icates. | Assurance fees. | Total fees. |
|-----------------|---|----------------------------|---|-----------------|-------------|-----------------------|---|----------------------------|---|-----------------|-------------|
| 1903. | | | | \$ cts. | \$ cts. | 1902. | | | | \$ cts. | \$ cts. |
| July..... | 374 | 56 | 250 | 356 00 | 1,321 90 | July..... | 233 | 65 | 164 | 104 65 | 704 35 |
| August..... | 463 | 136 | 365 | 403 85 | 1,437 65 | August..... | 183 | 22 | 137 | 307 60 | 955 45 |
| September..... | 329 | 47 | 214 | 250 45 | 1,079 00 | September..... | 257 | 94 | 194 | 216 25 | 872 40 |
| October..... | 373 | 41 | 277 | 375 25 | 1,417 00 | October..... | 704 | 525 | 634 | 126 25 | 773 25 |
| November..... | 359 | 27 | 238 | 287 95 | 1,350 25 | November..... | 254 | 59 | 180 | 189 45 | 903 05 |
| December..... | 353 | 62 | 254 | 277 25 | 1,207 90 | December..... | 284 | 68 | 180 | 250 10 | 990 10 |
| 1904. | | | | | | 1903. | | | | | |
| January..... | 342 | 35 | 233 | 283 50 | 1,204 25 | January..... | 263 | 33 | 155 | 140 05 | 788 95 |
| February..... | 438 | 83 | 296 | 272 45 | 1,326 90 | February..... | 326 | 119 | 246 | 135 75 | 767 25 |
| March..... | 462 | 92 | 332 | 334 45 | 1,475 25 | March..... | 380 | 147 | 304 | 193 40 | 924 25 |
| April..... | 540 | 67 | 390 | 585 00 | 2,063 95 | April..... | 299 | 31 | 236 | 135 15 | 1,125 00 |
| May..... | 549 | 53 | 398 | 542 80 | 2,144 20 | May..... | 339 | 57 | 247 | 236 00 | 1,166 35 |
| June..... | 642 | 113 | 449 | 457 10 | 2,003 10 | June..... | 332 | 80 | 236 | 317 70 | 1,318 15 |
| | 5,224 | 812 | 3,696 | 4,436 05 | 18,031 45 | | 3,983 | 1,300 | 2,973 | 2,472 35 | 11,298 55 |
| | | | | | | Irrigation plans..... | 4 | | | | |

W. ROLAND WINTER,
Registrar.

'PART V

ROCKY MOUNTAINS PARK OF CANADA

ROCKY MOUNTAINS PARK OF CANADA.

REPORT OF THE SUPERINTENDENT.

ROCKY MOUNTAINS PARK,

BANFF, ALBERTA, August 1, 1904.

To the Hon. CLIFFORD SIFTON,
Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit for your consideration my annual report as Superintendent of the Rocky Mountains Park of Canada for the year ending June 30, 1904, together with my first annual report of the Yoho extension for the same period.

Owing to the unusually wet weather which prevailed during the summer and autumn of 1903, it was very difficult to carry on out-door work in the park; and this fact, as well as the difficulty of securing the necessary labour, to a considerable extent retarded many improvements then in contemplation. However, the spring of 1904 opened early, and the weather since then has been most favourable for our work; although, owing to the vast addition to the park made in 1902, involving an increased area of nearly 5,000 square miles, the results of the work done during the past year are not nearly as noticeable as formerly, when the total area of the park did not exceed 260 square miles.

Since the date of my last report two miles of entirely new road were constructed east of Anthracite, the road having been completely destroyed by the caving in of the overhanging cut banks, caused by continual wet seasons. The direction of the new road has been changed so as to avoid any possible recurrence of this trouble.

The discovery of anthracite coal in large quantities by the Canadian Pacific Railway Company within a short distance of the village of Banff, and adjoining the road to Lake Minnewanka, necessitated the building of a spur from the main line near Banff station to the mines. This spur follows the driveway for a considerable distance towards Lake Minnewanka, which is perhaps the most popular trip in the park.

To obviate any danger of accident to travellers driving or on foot, I had an entirely new piece of road constructed at a distance from the old trail, which will prevent any possibility of accident to travellers, and reduce to a minimum any unpleasantness always to be found in the neighbourhood of a coal mine.

This new road, which is two miles in length, runs along the base of Cascade Mountain, and owing to its height and the beauty of the surrounding scenery, is a distinct improvement, which is much appreciated by visitors.

Owing to the increasing age of many of the smaller bridges and culverts, many of which were originally built of material found in the park, I have found it necessary to make close and frequent inspections, and have in many instances replaced these bridges and culverts by new and well built structures without any appreciable hindrance to traffic.

Towards the close of last season, after all danger of fire had passed, and frost prevented further work on the roads, I had the dead and fallen timber removed for a considerable distance from either side of the driveways, and have had the small and scrubby growth removed, so as to allow the young spruce and other trees light and

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room for growth. The removal of this dead and fallen timber is also an additional precaution against the spreading of forest fires.

A bridle trail was constructed last autumn from the village through the Simpson Pass to the base of Mount Assiniboine, a distance of 40 miles.

This mountain, which is 12,600 feet high and which up to a year ago withstood the efforts of the most eminent mountain climbers, has been conquered by the Rev. James Outram, an English clergyman, who made a successful ascent in 1903. Owing to the great interest taken by tourists in this mountain since the Rev. Mr. Outram's ascent, I thought it advisable that this trail should be opened up. The trail is well patronized. It is my intention during the coming autumn to construct a bridle trail up the Spray Valley to the Spray Lakes (one of the best fishing grounds in the park), and thence by way of White Man's Pass to Mount Assiniboine to connect with the trail already built. This will make a very interesting trip for tourists, who will be enabled to visit both points of interest without retracing their steps. These trails will be laid out so that there will be absolutely no danger for even the most timid visitor or his ponies. Another trail has been built in through the Mount Edith Pass to Forty Mile Lakes, a distance of 15 miles. As a consequence, this famous fishing resort is now well patronized by fishermen, and some magnificent scenery not hitherto available, has been placed within easy reach of park visitors.

MUSEUM BUILDINGS AND GROUNDS.

The spacious new museum, erected at a cost of \$10,000, has been open to the public since July, 1903. The museum is one of the most picturesque features of the park, and has been described as the most handsome of all western public buildings, having regard to the size and cost of constructing it. It consists of a basement and two stories, most artistically constructed of British Columbia fir, and handsomely finished throughout in selected Douglas fir.

From the tabulated statement appended hereto, it will be seen that the number of visitors to the museum during the past year equals the total number of visitors to the old building.

During the year many additions have been made in almost every department, more especially in those classes inclusive of the flora and fauna of the country. It may safely be said that the Rocky Mountains Park contains the nucleus of what will one day be the most interesting collection of the productions of a most interesting country. Ample room has been provided for the display of all specimens that may be secured for many years to come.

One of the most valued adjuncts of the museum is a spacious and comfortable reading-room where visitors will find all the leading daily papers of the Dominion, and where they may write their letters on note paper emblematic of the park, and supplied to them without charge. This feature of the arrangements, made for the convenience of visitors, is thoroughly appreciated, and the expense incurred in this regard is more than repaid by the expressions of gratitude which I constantly receive. The location of the Superintendent's office in the museum building is a great convenience to those seeking information on matters connected with the park.

The museum building is electrically connected with the observatory on Sulphur Mountain, so that the velocity of the different wind currents as well as the temperature on the summit are automatically recorded for each hour of the day.

Since the date of my last annual report I have paid special attention to the adornment of the grounds immediately adjoining the museum building and park office. These grounds, to the extent of nearly four acres, have been thoroughly underbrushed and graded and provided with rustic seats at intervals among the shade trees. And the fact that these seats are almost constantly occupied is the best justification for their existence. The grounds south of the building have been terraced and sown with grass seed, and now present a very pretty appearance.

SESSIONAL PAPER No. 25

CAVE AND BASIN.

Work on the large additional swimming pool at the cave and basin, referred to in my last annual report, was completed early this spring, when it was opened to the public. The new swimming pool, which is supplied from one of the hot springs, is 100 feet long by 50 feet in width, and varies in depth from four to nine feet. Ten additional large and commodious dressing rooms have been provided, and each bather is now supplied with a costume, the whole cost of a bath being reduced to 25 cents (costume included).

The old method of heating the dressing rooms has been superseded by the installation of a hot air furnace situated in the basement of the new building, and well furnished waiting rooms for ladies and gentlemen have been added.

During the year ended June 30, 1904, nearly 5,000 persons availed themselves of the bathing facilities placed at their disposal. The revenue from this source has trebled within the last five years, and it is safe to say that having regard to the present facilities and arrangements for the comfort of bathers the revenue will continue to show a still further increase in the near future. It has been found necessary, owing to the increase in the number of bathers, to erect a building which is being used as a laundry, and a laundress has been engaged during the busy season to supply the necessary fresh towels and bathing costumes, and keep the latter in repair. I feel confident that the supplying of bathing costumes without charge will at least fully repay the expense of providing them, as many persons will now use the baths who would not otherwise do so, and that as a consequence the cave and basin, always a most popular resort, will become more popular than ever.

UPPER HOT SPRINGS BATHS.

Owing to the inclemency of the weather and the difficulty of securing labour, I was unable last year to commence the construction of the baths at Upper Hot Springs for which a grant of \$10,000 had been made. An early start was, however, made this spring, the work of construction is now well under way, and I hope to have all completed by September. The building, which will be 40 feet by 40 feet, will be divided into parts for the accommodation of ladies and gentlemen. Each part will contain four private hot sulphur bathrooms, sweating rooms, cooling rooms, hot and cold shower baths, hot plunge baths, comfortable dressing rooms and modern lavatories. Adjoining the building is an open air swimming pool 24 feet by 48 feet. The water for these baths will be taken from the Upper Hot Springs, which issue from Sulphur Mountain, and will be received in the building at a temperature of 114F. An analysis of the water from this spring, made by A. McGill, assistant analyst, shows its contents in dissolved organic matter as follows:—

| | Parts per Million. | Grains per Gallon. |
|--|--------------------|--------------------|
| Sulphuric acid (S.O ₃) | 550.0 | 38.50 |
| Chlorine (in chlorides) | 6.0 | 0.42 |
| Silica (Si O ₂) | 33.0 | 2.31 |
| Lime (Ca) | 355.0 | 24.85 |
| Magnesia (MgO) | 69.5 | 4.87 |
| Alkalies (expressed) . . . . . | .... | .... |
| As Soda (Na 20) | 8.9 | 0.62 |
| Lithium (decided trace) . . . . . | .... | trace. |
| Sulphuretted hydrogen | 4.3 | 0.30 |

Mr. McGill states also in his report:—‘I have no hesitation in saying that at least one hundred times as much lithium is present in the Banff water as in the sample from the famed Buffalo lithia springs, Virginia, U.S.A.’

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These baths, when completed, will be placed in charge of competent male and female attendants, and every effort will be made to provide for the comfort and convenience of the public. Only a nominal charge will be made for the use of these baths, so as to bring them within reach of all who desire to use them. In exceptional cases, where it can be shown that invalids who desire to use the baths are unable to pay, I would suggest that they be allowed to use them without any charge whatever.

BUFFALO, ELK, MOOSE, ETC.

Scarcely a visitor comes to Banff who does not find time to pay a visit to the animal paddock, which is located about two miles east of the village and adjoining the main line of the Canadian Pacific Railway. About 5,200 persons passed through the gates during the past year on horseback or in vehicles, and many hundreds of pedestrians have inspected the animals from outside.

There has been an increase of six head among the buffalo during the past year. A fine four-year-old was killed in June last while fighting with another bull. His head has been mounted, and now adorns the walls of the museum, where it attracts the attention of admiring visitors. The herd now numbers 46 head, and the prospects for the present season are most encouraging.

In May of the present year I exchanged two bulls from our herd for two from the herd of Mr. A. Corbin, of the Blue Mountain Park Reservation in New Hampshire, U.S.A. The introduction of new blood should prove beneficial to our herd.

The elk have also done well, showing an increase of two head since last report, without any losses. The moose show an increase of one head without any loss. Our black tail deer have also increased by two head, and there is a satisfactory increase among the angora goats. During the past year four Persian fat-tailed sheep, one male and three females, were donated to the park by Mr. Mossom Boyd, of Bobcaygeon, Ontario, all of which are doing well.

The total number of animals now in the park is as follows :—

| | |
|-------------------------------------|----|
| Buffalo.. | 46 |
| Elk.. | 10 |
| Moose.. | 5 |
| Deer.. | 10 |
| Angora goats.. | 14 |
| Persian sheep.. | 4 |
| Coyotes.. | 3 |
| Timber wolf.. | 1 |
| Cougars or mountain lions.. | 2 |
| Badger.. | 1 |
| Total.. | 96 |

Two fine specimens of the golden eagle must not be omitted from the list. All the animals and birds have thriven remarkably well during the year and are now in prime condition, the only loss being the young buffalo bull already mentioned.

PRESERVATION OF GAME.

Every effort has been made to preserve the game which at one time abounded in the Park. The Stony Indians are, as I have already stated in my last report, the offenders in this regard. Owing to the enormous area of the park it is impossible to prevent infractions of the game laws. The only additional suggestion which I can make is the establishment of a rigid and thorough system of game guardianship to maintain the legislation necessary for the enforcement of much more severe penalties for its infraction.

SESSIONAL PAPER No. 25

FISH AND FISH HATCHERY.

The trout fishing in the park during the past season has been quite up to the average, and formed a very great attraction to many visitors. Some miners working at Canmore coal mines were found to have broken the fishing laws by using explosives in the Spray Lakes. These men were promptly prosecuted and heavily fined. There is very little likelihood of a recurrence of such conduct.

I would again suggest the establishment of a fish hatchery in the park, which, in my opinion, is the most suitable place for breeding fish for the streams of the Territories.

FUTURE REQUIREMENTS.

I must once more respectfully call your attention to the absolute necessity which exists for the immediate construction of a modern sanitary system in the village of Banff itself. As will be seen from the figures already given there has been a marked increase in the tourist travel notwithstanding the rival attraction afforded by the St. Louis Exposition, and the fact that the presidential election takes place this year. The latter as well as the former have caused many visitors from the United States to remain away who would otherwise have visited the park this year.

The revenue of the present year shows the remarkable growth which has taken place in the village. The revenue at the baths for the month of July in the present year equals the total revenue from the same source for the year of 1898, while the revenue for July and August of the present year is very nearly equal to the total revenue for the year 1898. These facts furnish the best evidence of the large increase in population, and, in my opinion, sufficient justification for the outlay necessary to provide the village with a suitable sewerage and waterworks system. I have already drawn your attention to the necessity for these much needed improvements, and I am confident that when you consider the situation, you will agree with me that the time has now arrived when these improvements must be made if Banff is to maintain her reputation as Canada's choicest health resort. Numbers of cottages are being erected by lessees of village lots, and I would recommend that owners of all dwelling houses should be compelled to connect with the sewers. A waterworks plant should not be very difficult of construction, in view of the natural advantages which Banff enjoys, and once we have these systems installed there should be absolutely no danger of any serious outbreak of disease. The residents of the village are clamouring for sanitary improvements, and would only be too glad to avail themselves of the consequent advantages.

I would suggest the employment of an expert engineer, who should make a thorough inspection of the ground and report fully with as little delay as possible.

The electric light system, the introduction of which I recommended in my last annual report, is now almost an assured fact. Thanks to your permission to make arrangements with the Canadian Pacific Railway Company, I am now in a position to report that Banff will be supplied with an electric lighting system before the winter is upon us. Power will be supplied from the company's power house at Bankhead mines, and from present indications I am satisfied that the new light will be very popular among the householders. The streets from the Canadian Pacific Railway station to the Banff Springs Hotel will be lighted, as will also be the roads leading to several points of interest in the neighbourhood of the village. The light will be a great assistance in displaying the beauties of our museum, as well as promoting the comfort and convenience of visitors to the cave and basin.

LAGGAN.

Since my last annual report I have found it advisable to construct an entirely new road from Laggan station to the Canadian Pacific Railway chalet at Lake Louise.

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The old road, which during the season was largely travelled by tourists visiting Lake Louise and its vicinity, was objectionable for several reasons. The construction of the new road, which is situated higher up the mountain side, means the avoidance of a very steep grade, and the substitution of a very picturesque driveway for a comparatively uninteresting view. The expense attendant on the maintenance of the lower road was considerable owing to the difficulty of keeping it in good repair. No such difficulty will be experienced with the road which I have now built, as every precaution has been taken to avoid any reasonable possibility of trouble from Louise creek or washouts from the mountain side.

I have also found it advisable to construct a bridle trail from Hector station to Lake O'Hara, a beautiful spot situated on the highest point of land between British Columbia and the Territories. That the trail was justified is evidenced by the fact that it has received a very large share of tourist patronage during the present season, and those who visited Lake O'Hara are loud in their praises of that particular spot, which they claim will very soon rival some of the older and better known points of interest whose reputation for beauty is already well established.

Work is now well under way on the construction of a driving road to Moraine Lake in the Valley of Ten Peaks, and I hope to have this work fully completed by the opening of the tourist season of 1905. Moraine Lake, in common with almost every other beauty spot in the park, has its own particular advocates who never swerve from their belief that no other spot in the park can compare with it for scenic beauty, and it is a significant fact that during the present season those habitués of the park who are familiar with all the lights and shades of its best known spots, and who are enabled to enjoy the best that the park affords, have almost without exception chosen Moraine Lake as their summer camping ground. When gentlemen of the knowledge and experience of Mr. Whymper, Mr. Wilcox and many others who are regular visitors to the park, choose Moraine Lake as the spot where they can enjoy nature at her best, there is very little doubt that before long this will become one of the best known and most popular of our resorts.

YOH0.

I should like, before concluding my report, to draw your special attention to the work already completed and now being done in the Yoho Valley extension.

This vast tract of country, which was added to the Rocky Mountains Park in 1902, comprises all that portion of the park situated in British Columbia and covering an area of some 1,500 square miles.

At the time when this tract came under my jurisdiction there were absolutely no improvements upon it except the line of the Canadian Pacific Railway, which passes through it from the summit of the Rockies to Palliser, a distance of nearly 30 miles.

Owing to the lack even of bridle paths, travelling was very difficult, and only a few venturesome persons had the hardihood to brave the risks of exploring this unknown country. The beauties of the Yoho Valley had been spoken of at rare intervals, but there was very little tangible knowledge of the configuration of the country or its possibilities as a point of interest for the tourist.

To-day, however, I am glad to say the magnificence of the Yoho Valley district is generally known, and as the seasons advance the beauties of this, which will one day eclipse all others of the park's many attractions, are being widely advertised by the many tourists who have had the good fortune to gaze upon scenery which it is said has no equal in the park or elsewhere. A country where at least six gigantic glaciers may be seen at one time, a country abounding in waterfalls whose dizzy heights must be actually seen to be properly appreciated, a country interspersed by deep canyons lined by enormous timber is surely a country which should attract the tourist. The Yoho Valley forms a continuous panorama of the most magnificent scenery imaginable, where the sightseer can within short limits find views of the most diverse character

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and of almost illimitable extent. It has been well said that nowhere can one more truly appreciate the immensity of nature and the insignificance of man than in the Yoho Valley.

One of my first acts after taking over the Yoho extension was the construction of a driving road along the westerly base of Mount Burgess to Emerald Lake, a charming spot situate about seven miles from Field. You are already familiar with the beauties of Lake Louise, which at one time was thought to have no equal in the mountains. To-day Emerald Lake is looked upon as the most beautiful spot in an exceptionally beautiful district. The Canadian Pacific Railway Company, with commendable foresight and enterprise, lost no time in erecting on the borders of the lake a handsome and most comfortable chalet, which even now has become inadequate for the accommodation of the many visitors who make Emerald Lake the objective point of their progress through the park, and so popular has this favoured spot already become that it is intended to at least double the capacity of the chalet (now only a year old) the coming winter. The drive from Field is beautiful beyond description. The roadway forms an avenue of several miles in extent, lined by stately forest trees and carpeted on either side during the summer season by a profusion of the beautiful wild flowers which are to be found almost everywhere throughout the park. In the far distance for the greater part of the trip may be seen the ice-capped peak of Mount Emerald, and the magnificent Emerald Glacier which supplies the waters of Emerald Lake in the valley below. On the west a splendid view is to be had of the well known Van Horne Range, which although not the highest, is generally conceded to be one of the most beautiful of the many mountain ranges. Altogether the drive to Emerald Lake is one of the most enjoyable of our many outings, affording as it does magnificent scenery all along the road, and surprising and delighting the traveller by the indescribable beauty which he finds at the lake itself on reaching his destination. Almost immediately after taking over the Yoho Valley extension, the Canadian Pacific Railway Company, in order to reduce a heavy grade, found it advisable to abandon about eight miles of the original roadbed on the south side of the Kicking Horse River and immediately west of Field. The portion of the main line so abandoned formerly crossed over Ottertail Creek on a bridge 600 feet long and 120 feet high, and a little further westward crossed over Boulder Creek over another trestle bridge 80 feet high. I was enabled to arrange with the company to allow these trestles to remain. I had the ties removed and the road harrowed and rolled throughout the whole distance of eight miles and it is now as good as any of the roads in the park. By building one and one-half miles of new road from the railway station at Field along the base of Mount Dennis, a connection was made with the Ottertail road, the trestle bridges were planked and railed on both sides, and we have to-day an excellent driveway from Field to Ottertail, a distance of nine and a half miles. This road passes and affords an excellent view of the celebrated Mount Vaux Glacier, also Ottertail Range, Mount Vaux, Good Sir and Mount Hurd. It has been constructed at comparatively little expense to the government, and is a distinct acquisition to the enjoyment of the district through which it passes. It is proposed to continue this road so as to pass within fifty yards of the celebrated Wapta Falls, at the junction of the Beaver Foot and Kicking Horse rivers. These falls are 150 feet wide with a sheer drop of 60 feet. By continuing this road, which traverses a level country for a distance of about seven miles, it will be possible to connect with the Ice River valley road which was constructed by the British Columbia government, shortly before the acquisition of the park by the Federal government, at a cost of \$5,000. This road is now about ten miles long, running to the entrance of the Ice River Valley, which is declared by competent authority to be extremely rich in mineral deposits. Many rare minerals are found there. The construction of the proposed road will give a continuous driveway from Field to the head of the Ice River Valley and will open up a district which for scenic beauty has been declared by Mr. Edward Whymper, the well known mountaineer, to be the beauty spot of the Rocky Mountains. The Ice River and Beaver Foot Valley is the heart of the

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big game district and abounds in bear, moose, elk, caribou, deer, goats and mountain sheep, making it a veritable hunter's paradise.

A driveway has now been constructed along the north side of the Kicking Horse River from Field eastward for a distance of four miles to the entrance of the Yoho Valley, the magnificence of which I have already attempted to describe. It is my intention to proceed without delay with the construction of this road through the valley, and I am satisfied, as the result of my personal investigation, that the expense attendant on this project will be amply repaid by the opening up of this scenery, which in my opinion excels in extent and natural beauty anything yet discovered within the park limits.

BANKHEAD COAL MINES.

I submit for your consideration the following report dealing exclusively with the development of the Bankhead coal lands since the date of my last report. The acquisition and development of this property by the Canadian Pacific Railway Company marks a new era, not only in the history of the Rocky Mountains Park, but in the industrial life of the district of Alberta.

The mine property covers an area of about 5,000 acres, situated about five miles north-east of the village of Banff and directly east of Cascade Mountain. The land lies in a strip six miles long, the coal areas measuring one and one-seventh miles wide. No estimate has yet been made as to the actual quantity of coal available for mining, but it is safe to say that there is even now in sight sufficient coal to supply an enormous market for at least 50 years to come. The property consists of several seams varying in width from 4 feet to 15 feet. The two seams which are being operated at present measure 9 feet and 8 feet respectively.

A drift opening has been made on these seams known as No. 1 and No. 2, and tunnels have been driven in on each a distance of 1,600 feet, with the necessary parallel levels above the tunnel levels for airway. Both seams are connected on the surface, so that only one fan is required for ventilating purposes. This fan is at present placed at an elevation of 250 feet above the level of the mouth of the seam and 800 feet from the opening. It is proposed to replace it by another fan to be placed further back on the property later on. The present arrangement, however, furnishes sufficient air to remove all noxious gases and to keep the interior of the mine supplied with good fresh air.

No breasts have as yet been turned from the levels, the work up to now being practically development work. It is intended to construct breasts off the entries every sixty feet, and these will be driven up the pitch to the surface. The breasts will be 24 feet wide, leaving 36 feet of solid pillar between each to support the hanging wall.

There are in all about ten seams of coal on the property, all dipping towards the westward at an angle of 45°.

To what depth these seams continue downward below the present entries it is at present impossible to say. One seam has been followed for over 300 feet, and it may safely be presumed that the coal continues to run at its present dip to a depth beyond which it would not be profitable to follow it. There is now so much coal above the levels that are being driven in, that no sinking will be necessary for many years to come.

The quality of the lower seams is semi-anthracite. A few of the top seams are a little lower in fixed carbon and higher in volatile matter, and might be described as semi-bituminous coal.

An analysis of the lower seams gives the following results:—

| | | |
|----------------------|------|-----------|
| Moisture..... | 1.1 | per cent. |
| Fixed carbon..... | 83.3 | " |
| Volatile matter..... | 10.0 | " |
| Ash..... | 5.6 | " |

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A few samples have run as high as 86 per cent fixed carbon.

The coal is an excellent furnace and stove coal, and by the aid of a specially designed forced draft fire-box similar to those now in use on some American railroads, it will make a very good steam coal.

To handle the output for the coming season, which will be about 200 tons of marketable coal per day, a temporary breaker has been erected near the mine opening. At present six grades of coal are being made, viz., lump, egg, stove, nut, pea and No. 1 buckwheat. Next spring a large permanent breaker will be constructed having a capacity of 2,000 tons per day, and two sizes of coal, Nos. 2 and 3 buckwheat, will be made in addition to those already mentioned. This breaker will have a capacity of 200 tons of each grade.

Owing to the grade being too heavy to locate the railway spur near the present openings, it was found advisable to locate it on a lower level, which necessitated the driving of a tunnel through gravel and rock to the coal seams. This tunnel has already been driven a distance of 800 feet, and will have to be driven a further distance of 800 feet before it reaches the coal. This tunnel is large enough to permit of tracks on either side of the middle which is used as a travelling way, having also space for water flumes and air pipe-lines.

Air locomotives will be used to haul the coal to and from the mines. The mine cars will be elevated by an endless chain to the top of the breaker, which will be 150 feet high. The screening, sizing and loading will be done by the aid of the most modern machinery.

The shops are large, well lighted and equipped with the latest machinery used in mine work. The boiler-house, electric power plant and air compressors are the best obtainable. All the works will be lighted by electricity and the plant is already installed.

Every possible provision has been made for the comfort of the men engaged in and about the mine. Already a large area has been cleared of timber, streets have been graded and a modern waterworks system has been provided. Handsome and commodious offices have been erected, which are now being used by a large clerical staff. The homes of the officials would compare favourably in size and accommodation with those in many of Canada's most ambitious cities. Rows of comfortable cottages have been built for the use of the miners with families, and palatial boarding-houses, provided with all modern conveniences, are now in course of erection. In a word, Bankhead is to-day a picturesquely situated village, containing several streets of handsome dwellings and provided with electric lighting, waterworks and an up-to-date sanitary system. No expense has been spared by the company in providing the best of everything for its employees, and it is safe to say that at no distant date Bankhead will be not only a model mining town, but a town which will advance and prosper by leaps and bounds. The coal, as has been already stated, is of the most marketable quality, the market is growing rapidly and permanently, and everything points towards the establishment of one of the largest and most successful business enterprises ever undertaken in Canada.

The new village of Bankhead, instead of being a detriment to the beauty of the park, will, on the contrary, add another to the many and varied attractions of the neighbourhood. Situated almost directly on the road to Lake Minnewanka, one of the most popular drives in the vicinity of Banff, and a little more than half way to the lake, nestling under the shadow of Cascade, with its beautiful homes and its teeming industrial life, it has already become a popular stopping place for tourists. The officials in charge, notwithstanding their manifold duties, are most courteous in their treatment of visitors, and can always find time to make the visit a pleasant one for those who take an interest in the work which is being done.

In conclusion it affords me much pleasure to be able to state that in the performance of my duties I have been loyally supported by the employees who have worked with me, and that I have received valuable assistance in the maintenance of law and

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order from the members of the Royal North-west Mounted Police stationed at Banff and other points throughout the park.

The usual meteorological reports which are here appended, are worthy of perusal, furnishing as they do the best possible evidence of the mildness of our climate even in the depth of winter.

I have the honour to be, sir, your obedient servant,

HOWARD DOUGLAS,

Superintendent.

STATEMENT showing number of Visitors to the Rocky Mountains Park during the year ending June 30, 1904.

CANADIAN PACIFIC RAILWAY HOTEL.

VISITORS from July 1, 1903, to June 30, 1904.

| From where. | No. | From where. | No. |
|--------------------|-------|--------------------|-------|
| United States..... | 2,096 | Austria..... | 2 |
| Canada..... | 1,290 | Santa Barbara..... | 2 |
| England..... | 445 | Mexico..... | 4 |
| Australia..... | 75 | Sweden..... | 2 |
| Scotland..... | 50 | Hawaii..... | 2 |
| New Zealand..... | 35 | Sumatra..... | 2 |
| France..... | 14 | Portugal..... | 1 |
| South Africa..... | 14 | Ceylon..... | 1 |
| China..... | 14 | Wales..... | 1 |
| Ireland..... | 16 | Italy..... | 1 |
| Japan..... | 12 | Java..... | 1 |
| Hong Kong..... | 9 | Fiji Islands..... | 1 |
| India..... | 8 | Bavaria..... | 1 |
| Germany..... | 7 | Barbadoes..... | 1 |
| Honolulu..... | 7 | Cuba..... | 1 |
| Holland..... | 5 | Philippines..... | 4 |
| Buenos Ayres..... | 3 | | |
| Singapore..... | 3 | Total..... | 4,131 |

SANITARIUM HOTEL.

VISITORS from July 1, 1903, to June 30, 1904.

| From where. | No. | From where. | No. |
|--------------------|-------|-----------------|-------|
| Canada..... | 3,000 | Finland..... | 3 |
| United States..... | 378 | Germany..... | 2 |
| England..... | 62 | Portugal..... | 1 |
| Australia..... | 35 | Caleutta..... | 1 |
| New Zealand..... | 9 | Ceylon..... | 1 |
| China..... | 9 | Valparaiso..... | 1 |
| Scotland..... | 6 | Sweden..... | 1 |
| Ireland..... | 6 | Norway..... | 1 |
| France..... | 5 | | |
| Italy..... | 3 | Total..... | 3,526 |
| Japan..... | 3 | | |

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ALBERTA HOTEL.

VISITORS from July 1, 1903, to June 30, 1904.

| | |
|--------------------|-------|
| Canada..... | 1,462 |
| United States..... | 187 |
| England..... | 23 |
| Ireland..... | 3 |
| Australia..... | 3 |
| Scotland..... | 2 |
| Wales..... | 1 |
| South Africa..... | 1 |
| Total..... | 1,685 |

KING EDWARD HOTEL.

VISITORS from July 1, 1903, to June 30, 1904.

| | |
|--------------------|-----|
| Canada..... | 324 |
| United States..... | 48 |
| Mexico..... | 1 |
| Total..... | 373 |

NATIONAL PARK HOTEL.

VISITORS from July 1, 1903, to June 30, 1904.

| | |
|--------------|-----|
| General..... | 257 |
|--------------|-----|

SUMMARY.

| | No. |
|---|--------|
| C.P.R. Hotel..... | 4,131 |
| Sanitarium..... | 3,526 |
| Alberta Hotel..... | 1,685 |
| King Edward..... | 373 |
| National Park..... | 257 |
| Excursions not Registered..... | 980 |
| Summer Visitors residing in Cottages and Camping..... | 800 |
| Total Visitors for Year..... | 11,752 |

LAKE LOUISE CHALET.

VISITORS from July 1, 1903, to June 30, 1904.

| From where | No. | From where. | No. |
|--------------------|-----|-------------------|-------|
| United States..... | 983 | India..... | 4 |
| Canada..... | 452 | South Africa..... | 3 |
| England..... | 152 | Honolulu..... | 3 |
| Scotland..... | 25 | France..... | 3 |
| China..... | 8 | Tasmania..... | 3 |
| New Zealand..... | 7 | | |
| Germany..... | 6 | Total..... | 1,667 |
| Ireland..... | 4 | | |

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MOUNT STEPHEN HOUSE, FIELD, B.C.

VISITORS from July 1, 1903, to June 30, 1904.

| From where. | No. | From where. | No. |
|--------------------|-----|------------------|-------|
| Canada..... | 603 | Switzerland..... | 1 |
| United States..... | 465 | Portugal..... | 2 |
| England..... | 89 | Germany..... | 5 |
| Australia..... | 28 | Japan..... | 2 |
| Scotland..... | 7 | Sweden..... | 1 |
| France..... | 4 | Wales..... | 3 |
| Ireland..... | 2 | Honolulu..... | 1 |
| China..... | 4 | | |
| India..... | 2 | Total..... | 1,219 |

CAVE AND BASIN, BANFF.

VISITORS from July 1, 1903, to June 30, 1904.

| From where. | No. | From where. | No. |
|--------------------|-------|------------------|-------|
| Canada..... | 2,667 | Trinidad..... | 2 |
| United States..... | 1,490 | France..... | 16 |
| England..... | 307 | Germany..... | 4 |
| Scotland..... | 75 | Portugal..... | 2 |
| Ireland..... | 17 | Belgium..... | 2 |
| Australia..... | 90 | Switzerland..... | 4 |
| New Zealand..... | 52 | Finland..... | 2 |
| South Africa..... | 11 | Russia..... | 3 |
| India..... | 6 | Sweden..... | 4 |
| Tasmania..... | 12 | Holland..... | 4 |
| Fiji..... | 2 | Italy..... | 4 |
| Japan..... | 5 | Austria..... | 2 |
| China..... | 33 | | |
| Ceylon..... | 2 | Total..... | 4,828 |
| Mexico..... | 2 | | |

MUSEUM REGISTER, ROCKY MOUNTAINS PARK, BANFF.

VISITORS from July 1, 1903, to June 30, 1904.

| From where. | No. | From where. | No. |
|--------------------|-------|----------------------|-------|
| Canada..... | 3,927 | New South Wales..... | 3 |
| United States..... | 1,203 | Denmark..... | 3 |
| England..... | 401 | Italy..... | 3 |
| Australia..... | 49 | Russia..... | 2 |
| Scotland..... | 44 | Sweden..... | 2 |
| Ireland..... | 38 | Mexico..... | 2 |
| New Zealand..... | 38 | Buenos Ayres..... | 2 |
| China..... | 28 | Ceylon..... | 2 |
| Hawaiian Ids..... | 10 | Fiji Ids..... | 1 |
| Germany..... | 10 | Shetland Ids..... | 1 |
| France..... | 8 | Austria..... | 2 |
| Switzerland..... | 8 | Prussia..... | 1 |
| Wales..... | 8 | Bavaria..... | 1 |
| Queensland..... | 7 | Africa..... | 1 |
| South Africa..... | 7 | Newfoundland..... | 1 |
| Japan..... | 6 | Finland..... | 1 |
| Tasmania..... | 5 | | |
| Philippines..... | 5 | Total..... | 5,834 |
| India..... | 4 | | |

METEOROLOGICAL TABLES

ROCKY MOUNTAINS PARK.

MAXIMUM and Minimum Temperatures, Rainfall, Snowfall and the State of the Weather between July 1, 1903, and June 30, 1904.

| Date. | THERMOMETER READINGS. | | Rain. | Snow. | Weather. |
|------------|-----------------------|------|-------|-------|---|
| | Max. | Min. | | | |
| 1903. | ° | ° | in. | in. | |
| July 1.... | 54.4 | 35.1 | 0.05 | ..... | Cloudy. |
| " 2.... | 59.3 | 39.4 | 0.12 | ..... | " River going down. |
| " 3.... | 66.4 | 44.1 | 0.03 | ..... | Fair. |
| " 4.... | 62.8 | 42.2 | 0.08 | ..... | Cloudy, passing temporary showers, rainbow. |
| " 5.... | 53.0 | 42.2 | 1.77 | ..... | " fog, continued rain. |
| " 6.... | 49.1 | 35.8 | 1.93 | ..... | " river risen. |
| " 7.... | 56.8 | 38.7 | 0.06 | ..... | " river lower. |
| " 8.... | 57.9 | 38.8 | 0.04 | ..... | " |
| " 9.... | 63.5 | 38.0 | 0.12 | ..... | " |
| " 10.... | 68.1 | 39.6 | 0.62 | ..... | Fair. |
| " 11.... | 72.4 | 38.2 | ..... | ..... | " fine day. |
| " 12.... | 73.6 | 46.1 | ..... | ..... | " thunder and lightning but no rain fell. |
| " 13.... | 72.9 | 43.0 | τ | ..... | " squally, wind during night. |
| " 14.... | 61.1 | 40.0 | 0.13 | ..... | Cloudy, squally, wind all day, rainbow. |
| " 15.... | 64.8 | 45.1 | ..... | ..... | Fair. |
| " 16.... | 69.0 | 36.2 | ..... | ..... | " |
| " 17.... | 72.3 | 39.1 | ..... | ..... | " perfect day. |
| " 18.... | 72.4 | 42.9 | 0.23 | ..... | " thunder and lightning. |
| " 19.... | 68.6 | 43.2 | τ | ..... | Cloudy. |
| " 20.... | 74.2 | 38.3 | ..... | ..... | Fair, heavy dew, perfect day. |
| " 21.... | 79.4 | 43.0 | ..... | ..... | " perfect day. |
| " 22.... | 78.0 | 47.2 | ..... | ..... | " lightning, rain at night. |
| " 23.... | 73.8 | 53.5 | 0.08 | ..... | Cloudy, thunder, lightning, rain. |
| " 24.... | 60.4 | 48.7 | 0.47 | ..... | " river risen. |
| " 25.... | 66.0 | 35.8 | τ | ..... | Fair, very light rain. |
| " 26.... | 60.4 | 43.1 | 0.18 | ..... | Cloudy, thunder. |
| " 27.... | 61.8 | 44.4 | 0.11 | ..... | Fair. |
| " 28.... | 67.9 | 36.2 | 0.02 | ..... | " |
| " 29.... | 63.9 | 40.3 | 0.11 | ..... | Cloudy. |
| " 30.... | 64.3 | 45.9 | 0.04 | ..... | " fog. |
| " 31.... | 65.0 | 38.1 | 0.11 | ..... | " " |
| Aug. 1.... | 55.5 | 43.8 | 0.39 | ..... | " thunder and lightning, hail. |
| " 2.... | 59.3 | 40.1 | 0.15 | ..... | " |
| " 3.... | 54.5 | 40.2 | 0.27 | ..... | " |
| " 4.... | 57.9 | 43.1 | 0.10 | ..... | Fair. |
| " 5.... | 66.1 | 39.1 | ..... | ..... | " fine day. |
| " 6.... | 69.5 | 39.4 | τ | ..... | " |
| " 7.... | 70.0 | 42.1 | ..... | ..... | " |
| " 8.... | 74.0 | 39.2 | ..... | ..... | " fine day. |
| " 9.... | 69.6 | 43.2 | 0.39 | ..... | Cloudy, thunder and lightning. |
| " 10.... | 63.5 | 43.8 | 0.30 | ..... | " |
| " 11.... | 64.4 | 46.2 | 0.19 | ..... | Fair. |
| " 12.... | 69.3 | 37.2 | 0.01 | ..... | " heavy frost and dew. |
| " 13.... | 64.8 | 49.9 | 0.05 | ..... | " |
| " 14.... | 57.2 | 45.0 | 0.21 | ..... | Cloudy, fog. |
| " 15.... | 55.9 | 46.7 | 0.27 | ..... | " " |
| " 16.... | 69.4 | 47.6 | ..... | ..... | Fair, lightning. |
| " 17.... | 70.4 | 45.9 | ..... | ..... | " |
| " 18.... | 74.2 | 41.0 | ..... | ..... | " perfect day. |
| " 19.... | 78.4 | 40.0 | 0.02 | ..... | " |
| " 20.... | 74.4 | 49.4 | 0.03 | ..... | " |
| " 21.... | 63.1 | 38.5 | τ | ..... | " heavy dew fall. |
| " 22.... | 60.3 | 45.5 | 0.04 | ..... | Cloudy. |
| " 23.... | 58.8 | 45.6 | 0.95 | | " fog. |
| " 24.... | 53.3 | 37.5 | 0.05 | | " raw day. |
| " 25.... | 52.8 | 43.3 | 0.07 | | " " |
| " 26.... | 58.6 | 41.5 | | | Fair, fine day. |

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MAXIMUM and Minimum Temperatures, &c.—*Continued.*

| Date. | THERMOMETER READINGS. | | Rain. | Snow. | Weather. |
|-------------|-----------------------|------|-------|-------|--|
| | Max. | Min. | | | |
| 1903. | ° | ° | In. | In. | |
| Aug. 27.... | 68.0 | 40.0 | ..... | ..... | Fair. |
| " 28.... | 67.3 | 45.4 | ..... | ..... | " |
| " 29.... | 66.4 | 42.3 | 0.18 | ..... | " |
| " 30.... | 63.3 | 39.4 | 0.01 | ..... | " |
| " 31.... | 59.3 | 42.1 | 0.03 | ..... | " |
| Sept. 1.... | 58.3 | 33.1 | ..... | ..... | " lightning. |
| " 2.... | 53.7 | 31.9 | 0.01 | ..... | " frost. |
| " 3.... | 54.6 | 27.3 | ..... | ..... | " |
| " 4.... | 60.4 | 26.2 | ..... | ..... | " " ice on still water. |
| " 5.... | 58.0 | 31.8 | ..... | ..... | " river going down. |
| " 6.... | 56.7 | 44.8 | 0.34 | ..... | Cloudy. |
| " 7.... | 50.2 | 39.1 | 0.13 | ..... | " fresh snow on mountains. |
| " 8.... | 53.9 | 41.2 | ..... | ..... | " |
| " 9.... | 49.8 | 39.7 | τ | ..... | " |
| " 10.... | 47.0 | 38.4 | 0.28 | ..... | " heavy hail, fog. |
| " 11.... | 43.1 | 33.8 | 0.05 | ..... | " |
| " 12.... | 40.9 | 31.8 | 0.07 | ..... | " light snow and snow flurries. |
| " 13.... | 42.2 | 28.1 | ..... | ..... | " ice on still water, geese flying south. |
| " 14.... | 45.3 | 30.3 | ..... | ..... | " " " |
| " 15.... | 52.8 | 23.8 | ..... | ..... | Fair, hoar-frost, ice on still water, fine sunset, shooting stars, geese flying south. |
| " 16.... | 60.4 | 28.9 | ..... | ..... | Fair, hoar-frost, ice on still water, perfect day, geese flying south. |
| " 17.... | 63.9 | 30.9 | ..... | ..... | Fair, hoar frost. |
| " 18.... | 59.9 | 53.6 | ..... | ..... | Cloudy. |
| " 19.... | 55.4 | 43.0 | 0.19 | ..... | " |
| " 20.... | 51.5 | 30.0 | 0.02 | ..... | " fresh snow on mountains, fog. |
| " 21.... | 41.7 | 33.2 | 0.52 | 3.00 | " slushy walking. |
| " 22.... | 44.9 | 30.8 | 0.66 | ..... | " fog, river rising. |
| " 23.... | 55.9 | 38.1 | 0.13 | ..... | " river still rising. |
| " 24.... | 53.1 | 43.2 | 0.41 | ..... | " river risen much, geese flying south-east. |
| " 25.... | 48.3 | 35.2 | 0.15 | ..... | " much fresh snow on mountains. |
| " 26.... | 44.3 | 32.9 | ..... | ..... | " |
| " 27.... | 56.6 | 37.1 | τ | ..... | Fair. |
| " 28.... | 65.4 | 48.1 | 0.02 | ..... | " very squally wind. |
| " 29.... | 52.6 | 31.4 | 0.10 | ..... | " hoar-frost. |
| " 30.... | 49.0 | 21.0 | ..... | ..... | " " |
| Oct. 1.... | 52.3 | 25.4 | ..... | ..... | " |
| " 2.... | 48.8 | 29.0 | 0.02 | 0.50 | Cloudy. |
| " 3.... | 36.3 | 20.7 | ..... | 0.25 | Fair. |
| " 4.... | 42.6 | 20.1 | ..... | ..... | " hoar-frost. |
| " 5.... | 46.3 | 33.8 | 0.01 | ..... | Cloudy. |
| " 6.... | 43.3 | 35.8 | 0.05 | ..... | Fair, squally wind all day. |
| " 7.... | 44.8 | 32.2 | ..... | ..... | " squally wind. |
| " 8.... | 45.2 | 24.8 | ..... | ..... | " hoar-frost, lunar corona. |
| " 9.... | 41.7 | 28.8 | 0.05 | ..... | Cloudy, snow flurries. |
| " 10.... | 50.8 | 35.9 | ..... | ..... | " |
| " 11.... | 47.5 | 33.5 | 0.08 | ..... | Fair. |
| " 12.... | 52.2 | 39.9 | ..... | ..... | Cloudy. |
| " 13.... | 57.3 | 39.4 | 0.04 | ..... | " very squally wind, lunar corona. |
| " 14.... | 45.7 | 26.3 | ..... | ..... | Fair, squally wind. |
| " 15.... | 49.8 | 29.1 | ..... | ..... | " very squally wind. |
| " 16.... | 55.2 | 32.2 | ..... | ..... | " fine sunset. |
| " 17.... | 61.3 | 34.2 | ..... | ..... | " hoar-frost, shooting stars, very squally wind. |
| " 18.... | 60.8 | 40.6 | ..... | ..... | " very squally wind. |
| " 19.... | 57.8 | 50.8 | τ | ..... | Cloudy. |
| " 20.... | 53.5 | 34.8 | 0.14 | ..... | " |
| " 21.... | 50.2 | 30.2 | 0.06 | ..... | Fair, hoar-frost. |
| " 22.... | 48.2 | 27.0 | ..... | ..... | " " fine sunset. |
| " 23.... | 60.9 | 33.8 | ..... | ..... | " very squally wind. |
| " 24.... | 57.4 | 27.8 | ..... | ..... | " hoar-frost, perfect day. |
| " 25.... | 56.0 | 25.4 | ..... | ..... | Fair, hoar-frost, perfect day. |
| " 26.... | 56.3 | 24.8 | ..... | ..... | " " " |
| " 27.... | 55.3 | 33.9 | ..... | ..... | " squally wind. |

SESSIONAL PAPER No. 25

MAXIMUM and Minimum Temperatures, &c.— *Continued.*

| Date. | THERMOMETER READINGS. | | Rain. | Snow. | Weather. |
|-------------|-----------------------|--------|-------|-------|---|
| | Max. | Min. | | | |
| 1903. | ° | ° | In. | In. | |
| Oct. 28.... | 53·7 | 40·7 | 0·14 | ..... | Cloudy, fog. |
| " 29.... | 42·5 | 31·9 | 0·08 | ..... | " |
| " 30.... | 47·2 | 31·8 | ..... | ..... | Fair, fine day. |
| " 31.... | 50·3 | 33·1 | ..... | ..... | " hoar-frost, squally wind, aurora. |
| Nov. 1.... | 57·2 | 41·2 | ..... | ..... | " squally wind. |
| " 2.... | 57·4 | 43·8 | 0·02 | ..... | Cloudy, squally wind. |
| " 3.... | 45·0 | 28·9 | ..... | 6·50 | Fair, about 5 inches of snow on ground. |
| " 4.... | 31·4 | 27·3 | ..... | ..... | Cloudy, fog. |
| " 5.... | 39·2 | 29·4 | 0·03 | 0·10 | " snow. |
| " 6.... | 41·1 | 32·2 | 0·03 | 0·10 | " " |
| " 7.... | 35·8 | 28·0 | ..... | 0·60 | Fair. |
| " 8.... | 30·0 | 10·0 | ..... | ..... | " ice on edges of river. |
| " 9.... | 31·1 | 25·4 | ..... | 0·10 | Cloudy. |
| " 10.... | 30·8 | 23·2 | ..... | ..... | " |
| " 11.... | 20·8 | 4·6 | ..... | s. | " snow. |
| " 12.... | 17·1 | 6·1 | ..... | 1·00 | Fair, river frozen over above boathouse. |
| " 13.... | 8·7 | — 3·3 | ..... | 0·25 | Fair. |
| " 14.... | 1·8 | — 3·6 | ..... | 2·25 | Cloudy, river frozen over below boathouse, first sleighing but bad, about 4 inches of snow on ground. |
| " 15.... | — 1·8 | — 6·3 | ..... | 1·15 | Cloudy, pine grosbeaks about. |
| " 16.... | 2·0 | —15·4 | ..... | 0·10 | Fair, perfect day, fine sunset. |
| " 17.... | 0·2 | —25·3 | ..... | ..... | " " |
| " 18.... | 6·9 | —17·0 | ..... | ..... | " " |
| " 19.... | 23·1 | — 4·0 | ..... | ..... | Cloudy, squally wind, snow drifting, road bare of snow in places. |
| " 20.... | 35·0 | 19·8 | ..... | ..... | Cloudy, thaw, shooting stars. |
| " 21.... | 33·8 | 18·3 | ..... | 2·25 | " shooting stars, 5½ inches of snow on ground. |
| " 22.... | 36·1 | 28·1 | ..... | 0·25 | " thaw. |
| " 23.... | 31·8 | 10·7 | ..... | ..... | Fair, fine day. |
| " 24.... | 27·9 | 20·2 | ..... | ..... | " squally wind. |
| " 25.... | 31·8 | 21·8 | ..... | ..... | " " |
| " 26.... | 37·4 | 29·1 | 0·13 | ..... | Cloudy, snow, sleet, rain, fog, slushy streets. |
| " 27.... | 43·0 | 32·0 | 0·31 | ..... | " river opening up. |
| " 28.... | 37·7 | 16·9 | ..... | ..... | Fair, fine day, about 18 inches of snow nearing top of Sulphur Mt. |
| " 29.... | 39·0 | 26·0 | 0·01 | ..... | Cloudy, sleighing since November 14, but bad. |
| " 30.... | 41·2 | 34·0 | r. | ..... | " chinook wind, ice on river about 4½ inches, roads slippery. |
| Dec. 1.... | 44·1 | 36·3 | 0·39 | ..... | Cloudy, snow mostly in patches. |
| " 2.... | 36·6 | 27·0 | 0·01 | ..... | " no sleighing. |
| " 3.... | 27·1 | 15·7 | ..... | ..... | Fair, perfect day. |
| " 4.... | 24·3 | 10·8 | ..... | ..... | " fine sunset, bad walking. |
| " 5.... | 28·0 | 16·0 | ..... | ..... | " fine sunrise, squally wind. |
| " 6.... | 32·1 | 23·3 | ..... | ..... | Cloudy, Stellar's jay about. |
| " 7.... | 29·8 | 13·4 | ..... | ..... | Fair, fine sunset. |
| " 8.... | 32·3 | 23·6 | ..... | ..... | " snowbirds, fine sunrise and sunset. |
| " 9.... | 27·7 | 18·0 | ..... | ..... | " hoar-frost, fine day. |
| " 10.... | 24·0 | 10·8 | ..... | ..... | Cloudy, hoar-frost. |
| " 11.... | 21·3 | 5·2 | ..... | 0·25 | " shooting stars. |
| " 12.... | 8·1 | — 12·4 | ..... | ..... | Fair. |
| " 13.... | 17·3 | — 2·2 | ..... | 0·65 | " squally wind. |
| " 14.... | 26·7 | 12·3 | ..... | ..... | " " |
| " 15.... | 32·2 | 23·2 | ..... | ..... | Cloudy, thaw. |
| " 16.... | 40·3 | 28·8 | ..... | ..... | " " |
| " 17.... | 37·9 | 24·3 | 0·01 | 0·60 | Fair, sleighing but indifferent, shooting stars. |
| " 18.... | 24·8 | 10·2 | ..... | ..... | Fair, thaw. |
| " 19.... | 27·3 | 10·4 | ..... | ..... | Cloudy. |
| " 20.... | 30·3 | 22·8 | ..... | 0·40 | " snowbirds. |
| " 21.... | 31·8 | 20·8 | | | Fair. |
| " 22.... | 29·6 | 20·6 | | | Cloudy. |
| " 23.... | 31·3 | 11·2 | | | " " |
| " 24.... | 37·8 | 27·9 | | | Fair, fine day. |
| " 25.... | 35·2 | 25·1 | | | " |

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MAXIMUM and Minimum Temperatures, &c.—*Continued.*

| Date. | THERMOMETER READINGS. | | Rain. | Snow. | Weather. |
|-------------|-----------------------|-------|-------|-------|---|
| | Max. | Min. | | | |
| 1903. | ° | ° | in. | in. | |
| Dec. 26.... | 42.0 | 27.1 | ..... | ..... | Fair, sleighing poor |
| " 27.... | 31.9 | 18.2 | ..... | ..... | " some roads bare of snow. |
| " 28.... | 28.1 | 7.4 | ..... | ..... | " fine day. |
| " 29.... | 35.3 | 22.1 | ..... | ..... | " squally wind, snowbirds. |
| " 30.... | 45.3 | 30.4 | 0.01 | ..... | " " |
| " 31.... | 40.3 | 15.0 | ..... | 0.35 | Cloudy, sleighing improved. |
| 1904. | | | | | |
| Jan. 1.... | 15.6 | 2.0 | ..... | ..... | Fair, large lunar corona, fine day. |
| " 2.... | 23.2 | 9.0 | ..... | ..... | " fine day and night, sleighing none. |
| " 3.... | 24.2 | 10.5 | ..... | ..... | " very fine night. |
| " 4.... | 22.0 | 4.0 | ..... | ..... | " " ice crystals falling 10 a.m. |
| " 5.... | 25.0 | 2.5 | ..... | s | " strong wind through night. |
| " 6.... | 36.5 | 22.2 | ..... | ..... | Cloudy, whole gale from noon to 5 p.m. and then through midnight. |
| " 7.... | 43.5 | 35.5 | ..... | ..... | Cloudy, strong wind all day, thawing all afternoon. |
| " 8.... | 43.2 | 33.0 | ..... | s | " thaw. |
| " 9.... | 36.0 | 19.2 | ..... | 0.50 | Fair, fine day and night. |
| " 10.... | 23.2 | 15.5 | ..... | ..... | " " |
| " 11.... | 25.5 | 17.0 | ..... | 0.75 | Cloudy, fine day. |
| " 12.... | 29.0 | 15.0 | ..... | 0.25 | " " |
| " 13.... | 37.5 | 28.2 | ..... | 0.75 | " very mild, sleighing again. |
| " 14.... | 38.0 | 29.2 | ..... | 0.75 | " " |
| " 15.... | 29.6 | 12.8 | ..... | 3.50 | " fine day, sleighing good. |
| " 16.... | 18.6 | 4.0 | ..... | 2.00 | " 8½ inches of snow on ground. |
| " 17.... | 6.2 | -5.6 | ..... | 1.75 | " " |
| " 18.... | -1.6 | -14.2 | ..... | 2.00 | " 11½ inches of snow on ground. |
| " 19.... | -7.8 | -21.6 | ..... | 0.12 | Fair, fine day and night. |
| " 20.... | 12.5 | -17.8 | ..... | ..... | " snow drifting. |
| " 21.... | 19.0 | 2.2 | ..... | ..... | Cloudy, fine night. |
| " 22.... | 23.2 | 7.2 | ..... | ..... | Fair, very fine day and night. |
| " 23.... | 21.0 | -0.0 | ..... | ..... | Cloudy. |
| " 24.... | 23.2 | 7.8 | ..... | 0.75 | " fine day and night. |
| " 25.... | 22.2 | -0.0 | ..... | ..... | " " |
| " 26.... | 23.8 | 2.0 | ..... | ..... | Fair " " |
| " 27.... | 29.2 | 6.2 | ..... | ..... | " " " |
| " 28.... | 33.2 | 13.5 | ..... | ..... | " " " |
| " 29.... | 39.0 | 24.5 | ..... | ..... | Cloudy, fine day, very fine night. |
| " 30.... | 36.8 | 14.0 | ..... | ..... | Fair, fine day and night, mild. |
| " 31.... | 39.0 | 27.8 | ..... | ..... | Cloudy, fine day, strong wind, snow flurries, snow drifting. |
| Feb. 1.... | 37.1 | 24.8 | ..... | ..... | Fair, snow flurries. |
| " 2.... | 24.6 | 11.2 | ..... | ..... | Cloudy, light hail, fine night. |
| " 3.... | 23.0 | 0.5 | ..... | ..... | " fine day. |
| " 4.... | 21.8 | -1.0 | ..... | 0.50 | " " |
| " 5.... | -0.9 | -8.1 | ..... | 2.50 | " cold wind all day and through midnight. |
| " 6.... | -6.6 | -15.5 | ..... | 1.00 | Fair, snow drifting, cold, n.e. wind. |
| " 7.... | -9.8 | -17.3 | ..... | 0.25 | " cold, n.e. wind through day. |
| " 8.... | -7.8 | -20.2 | ..... | ..... | " fine day. |
| " 9.... | 0.2 | -27.2 | ..... | ..... | " " |
| " 10.... | 8.2 | -21.6 | ..... | 0.25 | " " |
| " 11.... | 5.7 | -14.7 | ..... | 0.10 | " " |
| " 12.... | 2.1 | -8.2 | ..... | 1.25 | Cloudy, snow flurries, very cold, n.e. wind. |
| " 13.... | -4.2 | -16.5 | ..... | 1.50 | " very cold, n.e. wind. |
| " 14.... | -1.3 | -14.0 | ..... | 0.75 | Fair, 12 inches of snow on ground. |
| " 15.... | 23.2 | -19.2 | ..... | 0.25 | Cloudy. |
| " 16.... | 30.2 | 6.4 | ..... | 0.25 | Fair, snow flurries. |
| " 17.... | 28.3 | 19.5 | ..... | ..... | Fair. |
| " 18.... | 31.3 | 9.2 | ..... | ..... | Fair, fine day. |
| " 19.... | 33.3 | 15.8 | ..... | 0.35 | Cloudy, snowstorm with soft hail. |
| " 20.... | 24.3 | -8.7 | ..... | ..... | Fair. |
| " 21.... | 6.6 | -14.2 | ..... | 0.65 | Cloudy. |
| " 22.... | 1.3 | -8.6 | ..... | 2.60 | Cloudy. |

SESSIONAL PAPER No. 25

MAXIMUM and Minimum Temperatures, &c.—Continued.

| Date. | THERMOMETER READINGS. | | Rain. | Snow. | Weather. |
|-------------|-----------------------|-------|-------|-------|---|
| | Max. | Min. | | | |
| 1904. | ° | ° | in. | in. | |
| Feb. 23.... | 28.3 | — 5.1 | ..... | 0.50 | Cloudy, snow drifting. |
| " 24.... | 25.0 | — 8.4 | ..... | 0.80 | Cloudy, squally wind all day. |
| " 25.... | 24.5 | — 9.7 | ..... | ..... | Fair, thawing in sun. |
| " 26.... | 28.2 | 6.0 | ..... | 1.75 | Cloudy, 15 inches of snow on ground. |
| " 27.... | 30.4 | 18.4 | ..... | 0.75 | Cloudy, snow drifting. |
| " 28.... | 34.7 | 10.6 | ..... | 0.35 | Cloudy. |
| " 29.... | 28.8 | 6.2 | ..... | 0.60 | Cloudy, ice on Bow river 21 inches. |
| Mar. 1.... | 17.8 | —23.1 | ..... | 0.20 | Fair. |
| " 2.... | 23.7 | —23.7 | ..... | ..... | Fair, fine day. |
| " 3.... | 25.4 | — 4.0 | ..... | ..... | Cloudy. |
| " 4.... | 35.7 | 16.2 | ..... | ..... | Fair, very gusty wind. |
| " 5.... | 33.7 | 25.1 | ..... | 0.75 | Cloudy, snow part melting after falling, foggy on mountains during day. |
| " 6.... | 38.7 | 26.3 | ..... | 1.75 | Fair, thaw, Clarke's crow building nests. |
| " 7.... | 33.0 | 22.9 | ..... | 0.80 | Cloudy, thaw. |
| " 8.... | 27.6 | 16.4 | ..... | 1.25 | Cloudy, trees coated with frost, snow drifting. |
| " 9.... | 17.7 | 3.2 | ..... | 1.50 | Fair, 16 inches of snow on ground. |
| " 10.... | 28.2 | —12.0 | ..... | ..... | Fair, trees coated with frost, snow in drifts from 20 to 30 inches. |
| " 11.... | 37.7 | 6.0 | ..... | 0.10 | Fair, thaw, fine day. |
| " 12.... | 32.9 | — 0.4 | ..... | ..... | Fair, silver thaw, fine day. |
| " 13.... | 29.7 | — 2.2 | ..... | 0.30 | Fair, silver thaw. |
| " 14.... | 25.4 | —14.7 | ..... | 0.75 | Cloudy, silver thaw. |
| " 15.... | 26.2 | 1.8 | ..... | 1.55 | Cloudy, snow drifting. |
| " 16.... | 30.1 | 0.2 | ..... | ..... | Fair. |
| " 17.... | 25.3 | 3.5 | ..... | 0.20 | Cloudy, 16½ inches of snow on ground. |
| " 18.... | 34.7 | 5.6 | ..... | 0.85 | Cloudy. |
| " 19.... | 28.6 | 3.0 | ..... | ..... | Cloudy, snow drifting, moth in house. |
| " 20.... | 24.1 | — 0.6 | ..... | 0.55 | Fair. |
| " 21.... | 16.2 | 2.6 | ..... | 0.50 | Fair. |
| " 22.... | 17.2 | —11.4 | ..... | 0.25 | Fair. |
| " 23.... | 11.6 | — 4.4 | ..... | 0.65 | Cloudy |
| " 24.... | 12.7 | — 6.6 | ..... | 0.05 | Fair, fine day. |
| " 25.... | 19.1 | —18.4 | ..... | ..... | Fair, large lunar halo and solar corona, fine day. |
| " 26.... | 28.1 | —15.3 | ..... | ..... | Fair, chickadees about. |
| " 27.... | 38.8 | 19.8 | ..... | ..... | Fair, fine afternoon. |
| " 28.... | 35.6 | 17.3 | ..... | 0.05 | Cloudy, visibility of distant objects, although sky cloudy. |
| " 29.... | 44.2 | 18.6 | ..... | ..... | Fair, thaw, robin about. |
| " 30.... | 42.3 | 28.8 | 0.02 | ..... | Fair, soft hail. |
| " 31.... | 41.9 | 11.1 | ..... | ..... | Fair, perfect day, ice on river about 17 inches, on lake Minnewanka 27 inches. |
| April 1.... | 48.7 | 17.1 | ..... | ..... | Fair, fine day and night. |
| " 2.... | 53.1 | 21.2 | ..... | ..... | Fair, perfect day, river beginning to open in places, poplar buds opening. |
| " 3.... | 48.1 | 18.4 | ..... | ..... | Fair, sleighing still fairly good. |
| " 4.... | 44.0 | 30.2 | ..... | 0.30 | Fair, road to station breaking up. |
| " 5.... | 37.5 | 27.7 | 0.06 | s. | Cloudy, flock of redpolls, nighthawks during night. |
| " 6.... | 40.3 | 24.7 | 0.01 | 3.75 | Cloudy, snowbirds, soft hail. |
| " 7.... | 37.0 | 11.0 | ..... | ..... | Fair, Oregon juncos. |
| " 8.... | 44.7 | 15.8 | ..... | ..... | Cloudy, some roads part bare and in places dry. |
| " 9.... | 51.1 | 29.3 | ..... | ..... | Fair, willows bursting buds, chinook, sleighing bad. |
| " 10.... | 54.7 | 45.0 | ..... | ..... | " fine day and night, chinook, aurora, geese flying north. |
| " 11.... | 58.3 | 24.2 | ..... | ..... | Fair, hoar-frost, river open many places, duck on river, bees about, perfect day, sleighing gone. |
| " 12.... | 64.5 | 28.5 | ..... | ..... | Fair, flock redpolls, moths, mosquitoes, snow slides on mountains, river open, snow gone from about town. |
| " 13.... | 67.2 | 26.9 | ..... | ..... | Fair, thrush about, hoar-frost, perfect day. |
| " 14.... | 62.6 | 27.0 | ..... | ..... | " |
| " 15.... | 39.8 | 19.3 | ..... | ..... | " squally wind all day. |
| " 16.... | 46.7 | 17.3 | ..... | ..... | " |
| " 17.... | 53.1 | 30.3 | ..... | ..... | " |
| " 18.... | 55.9 | 23.1 | ..... | ..... | " |

4-5 EDWARD VII., A. 1905

MAXIMUM and Minimum Temperatures, &c.—Continued.

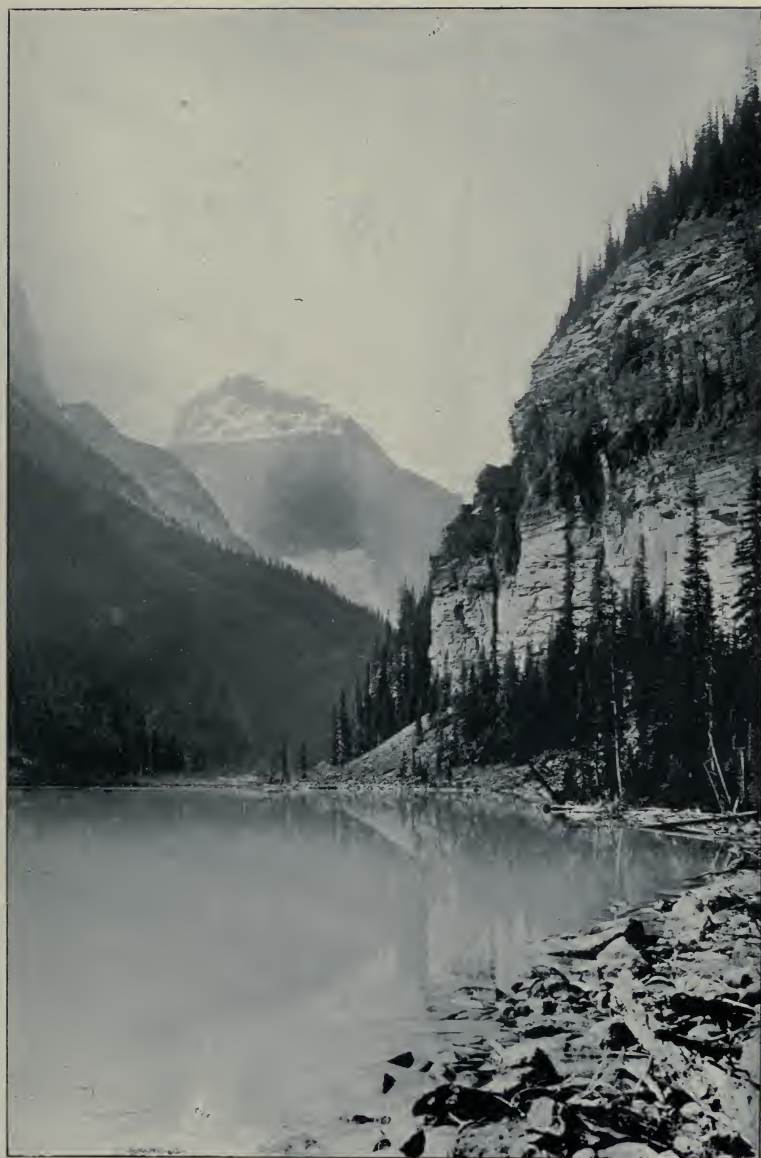
| Date. | THERMOMETER READINGS. | | Rain. | Snow. | Weather. |
|------------|-----------------------|------|-------|-------|---|
| | Max. | Min. | | | |
| 1904. | ° | ° | in. | in. | |
| " 19.... | 56·8 | 27·8 | | | Cloudy, geese flying west, river rising, 6 p. parhelia, vegetation showing signs of life. |
| " 20.... | 56·6 | 28·8 | τ | | Fair, frogs piping. |
| " 21.... | 56·0 | 26·9 | 0·03 | | " heavy hoar-frost, frogs piping. |
| " 22.... | 50·7 | 30·4 | τ | | Cloudy, dull day, fog. |
| " 23.... | 50·4 | 32·8 | 0·09 | | " several juncos about. |
| " 24.... | 54·1 | 35·2 | | | Fair, anemone patens var. Nuttalliana in flower, catkins on poplars (populus tremuloides) on 21st. |
| " 25.... | 62·0 | 25·6 | | | Fair, Townsend's solitaire, butterflies, mosquitoes, part-ridge drumming, geese flying about. |
| " 26.... | 66·4 | 26·9 | | | Fair, hoar-frost, perfect day, river rising. |
| " 27.... | 69·5 | 28·0 | | | " " bees, &c., salix in flower, lunar halo. |
| " 28.... | 64·1 | 32·0 | 0·12 | | Fair, river risen perceptibly. |
| " 29.... | 52·5 | 37·8 | 0·02 | | Cloudy, soft hail. |
| " 30.... | 43·4 | 28·6 | 0·01 | 2·25 | " |
| May 1.... | 43·7 | 33·1 | 0·02 | 0·02 | " Audubon's warbler, viola Canadensis and Shepherdia Canadensis in flower. |
| " 2.... | 52·9 | 34·1 | 0·08 | | Cloudy, fog. |
| " 3.... | 59·9 | 26·7 | | | Fair, hoar-frost. |
| " 4.... | 54·7 | 36·2 | 0·05 | | Cloudy, soft hail. |
| " 5.... | 45·7 | 28·1 | τ | s | Fair, thin ice on still shallow water. |
| " 6.... | 47·9 | 32·0 | | | " |
| " 7.... | 46·3 | 29·3 | 0·02 | | Cloudy, soft hail, Lake Minnewanka free of solid ice. |
| " 8.... | 50·9 | 23·2 | | | Fair. |
| " 9.... | 55·4 | 33·9 | | | " |
| " 10.... | 52·9 | 33·4 | τ | s | " primula Mistassinica in flower, Petasite's variety in flower. |
| " 11.... | 48·8 | 25·2 | | 0·25 | Fair. |
| " 12.... | 58·9 | 21·8 | | | " perfect day, thin ice on water barrels, bush fire n.e. |
| " 13.... | 65·5 | 28·3 | | | " " carex in flower, Androsace septentrionalis in flower. |
| " 14.... | 61·5 | 36·2 | | | Cloudy, meadow larks about. |
| " 15.... | 54·7 | 35·0 | 0·04 | | " populus tremuloides bursting into leaf. |
| " 16.... | 61·1 | 27·2 | | | Fair, white crowned sparrow, hoar-frost, thin ice on still shallow water, fine day. |
| " 17.... | 62·4 | 37·2 | | | Cloudy, swallows about, Calypso borealis and dodecatheon meadia in flower. |
| " 18.... | 63·9 | 41·4 | 0·08 | | Cloudy, chipping sparrows about, vegetation much advanced to-day, viola Mistassinica, Peucedanum triternatum and variety of Arabis in flower, river bed covered with water. |
| " 19.... | 58·0 | 39·7 | 0·40 | | Cloudy, Arctostaphylos, uva-ursi in flower, water beetles dropping about museum. |
| " 20.... | 68·4 | 34·1 | | | Fair, fine day, river rising rapidly, Castilleja pallida var. septentrionalis and Collinsia parviflora in flower, mosquitoes numerous on the mountains. |
| " 21.... | 67·4 | 41·9 | | | Fair. |
| " 22.... | 58·8 | 36·2 | 0·07 | | " |
| " 23.... | 52·5 | 33·2 | 0·01 | 0·25 | Cloudy, fresh snow on mountains, fog. |
| " 24.... | 43·6 | 27·1 | 0·07 | | " thin ice on water barrels, flock of swallows at Lake Minnewanka. |
| " 25.... | 55·5 | 25·3 | | | Fair, thin ice on water barrels. |
| " 26.... | 63·9 | 27·4 | | | " horned lark. |
| " 27.... | 61·5 | 36·1 | | | " |
| " 28.... | 55·4 | 39·8 | 0·02 | | " soft hail, squally wind. |
| " 29.... | 62·5 | 27·2 | | | " |
| " 30.... | 63·5 | 35·6 | | | " Anemone Drummondii and parviflora, Draba alpina and variety in flower. |
| " 31.... | 58·8 | 35·3 | 0·04 | | Cloudy, Lycaena butterfly about, fog. |
| June 1.... | 54·7 | 37·2 | 0·11 | | Cloudy, fog. |
| " 2.... | 47·0 | 33·5 | 0·23 | | " |
| " 3.... | 58·9 | 38·0 | 0·02 | | " |

SESSIONAL PAPER No. 25

MAXIMUM and Minimum Temperatures, &c.—*Concluded.*

| Date. | THERMOMETER READINGS. | | Rain. | Snow. | Weather. |
|------------|-----------------------|------|-------|-------|--|
| | Max. | Min. | | | |
| 1904. | ° | ° | In. | In. | |
| June 4.... | 70·5 | 32·3 | ..... | ..... | Fair. |
| " 5.... | 71·5 | 37·3 | 0·11 | ..... | " thunder. |
| " 6.... | 53·7 | 44·1 | 0·23 | ..... | Cloudy, <i>Arctostaphylos alpina</i> in flower, river risen much. |
| " 7.... | 49·5 | 33·6 | 0·06 | ..... | Fair, very thin ice on walks in morning. |
| " 8.... | 60·4 | 27·6 | ..... | ..... | " " in places. |
| " 9.... | 63·5 | 38·8 | 0·06 | ..... | Cloudy, hail, heavy thunder, vivid lightning, rainbow. |
| " 10.... | 48·9 | 34·2 | 0·79 | ..... | Cloudy. |
| " 11.... | 58·3 | 40·6 | 0·01 | ..... | " |
| " 12.... | 63·5 | 32·9 | ..... | ..... | Fair. |
| " 13.... | 67·4 | 29·2 | ..... | ..... | " hoar-frost, fine day, <i>clematis verticillaris</i> var. <i>Col-umbiana</i> in flower. |
| " 14.... | 71·6 | 35·0 | ..... | ..... | Fair, fine day, many plants in flower. |
| " 15.... | 76·2 | 38·0 | ..... | ..... | " fine day. |
| " 16.... | 75·2 | 39·3 | ..... | ..... | " " river high. |
| " 17.... | 74·4 | 44·0 | ..... | ..... | " river rising rapidly, fine day, roads very dusty. |
| " 18.... | 68·6 | 39·3 | 0·81 | ..... | Cloudy, fog. |
| " 19.... | 59·0 | 36·2 | 0·04 | ..... | Fair. |
| " 20.... | 63·6 | 32·9 | ..... | ..... | Cloudy. |
| " 21.... | 63·9 | 47·3 | 0·01 | ..... | " |
| " 22.... | 51·4 | 37·3 | 0·10 | ..... | " |
| " 23.... | 52·3 | 33·8 | 0·01 | ..... | " |
| " 24.... | 62·8 | 38·1 | ..... | ..... | " |
| " 25.... | 67·9 | 35·0 | ..... | ..... | Fair, river gone down and not so muddy. |
| " 26.... | 67·4 | 45·7 | 0·02 | ..... | " |
| " 27.... | 64·2 | 38·7 | τ | ..... | Cloudy, <i>Cassiope Mertensiana</i> and <i>larix Lyalli</i> in flower. |
| " 28.... | 74·4 | 36·5 | ..... | ..... | Fair. |
| " 29.... | 79·9 | 38·6 | ..... | ..... | " fine day. |
| " 30.... | 84·7 | 40·4 | τ | ..... | " thunder, fine sunset. |

N. B. SANSON,
Observer.



NO. 1.—MARAINÉ LAKE, NEAR LAGGAN, R. M. PARK.



NO. 2.—LAKE LOUISE, NEAR LAGGAN, R. M. PARK.



No. 3.—SPRAY RIVER BRIDGE AND SULPHUR MOUNTAIN.



NO. 4.—BOW RIVER BOAT HOUSE, BANFF.



NO. 5.—LAUGHING FALLS, YOHIO VALLEY.



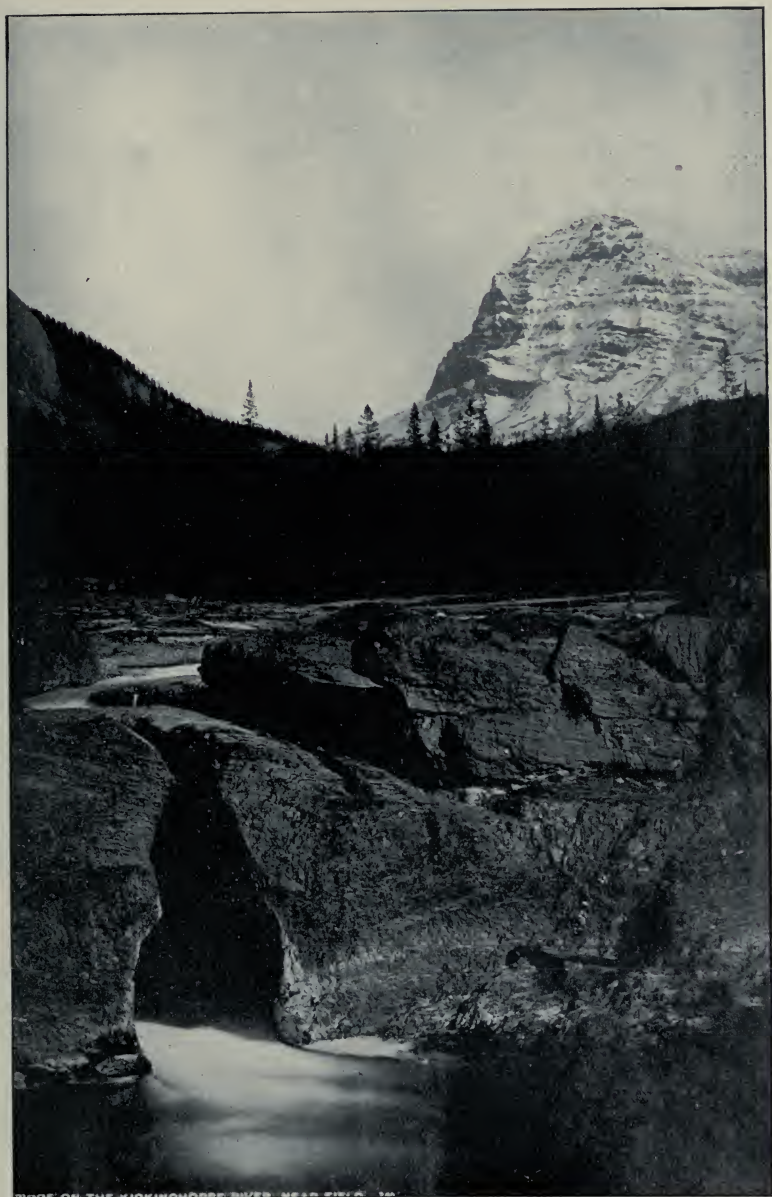
NO. 6.—TWIN FALL, YOH0 VALLEY.



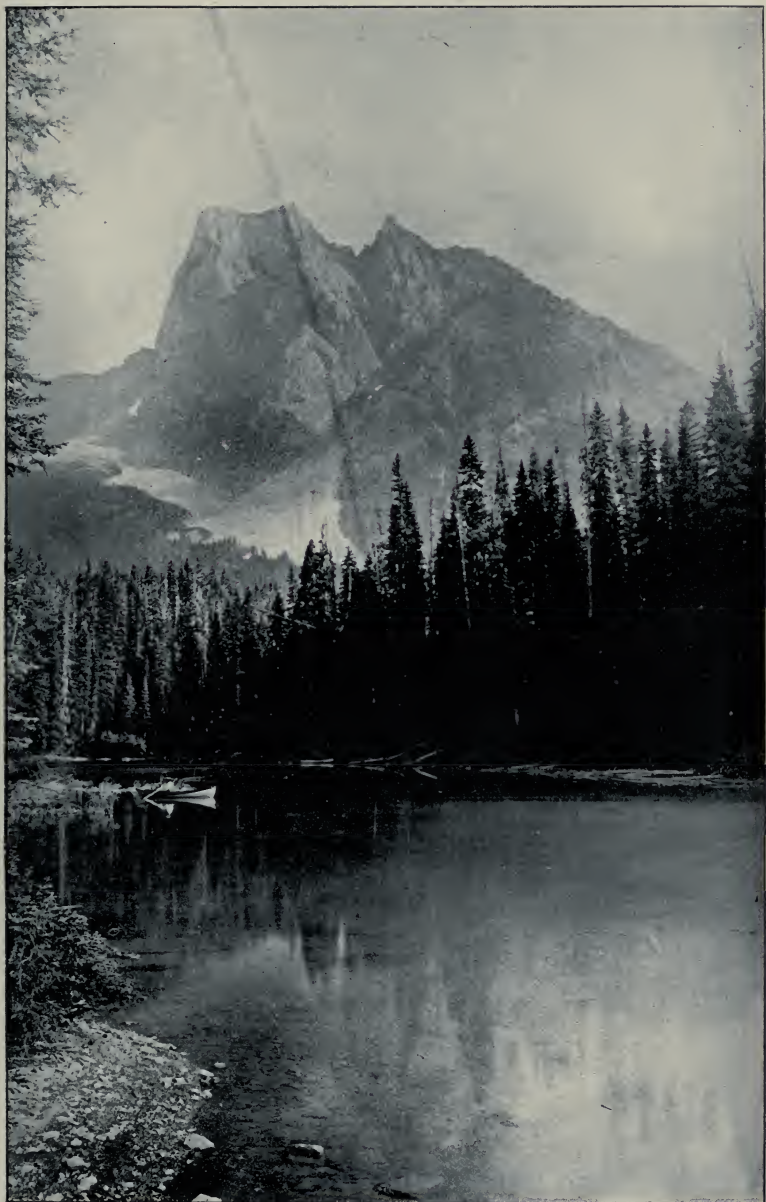
NO. 7.—TAKAKKAW FALLS, YOHIO VALLEY.



NO. 8.—TWIN FALLS CANYON, YOHIO VALLEY.



NO. 9.—NATURAL BRIDGE ON THE KICKINGHORSE RIVER, NEAR FIELD.
25--v--6

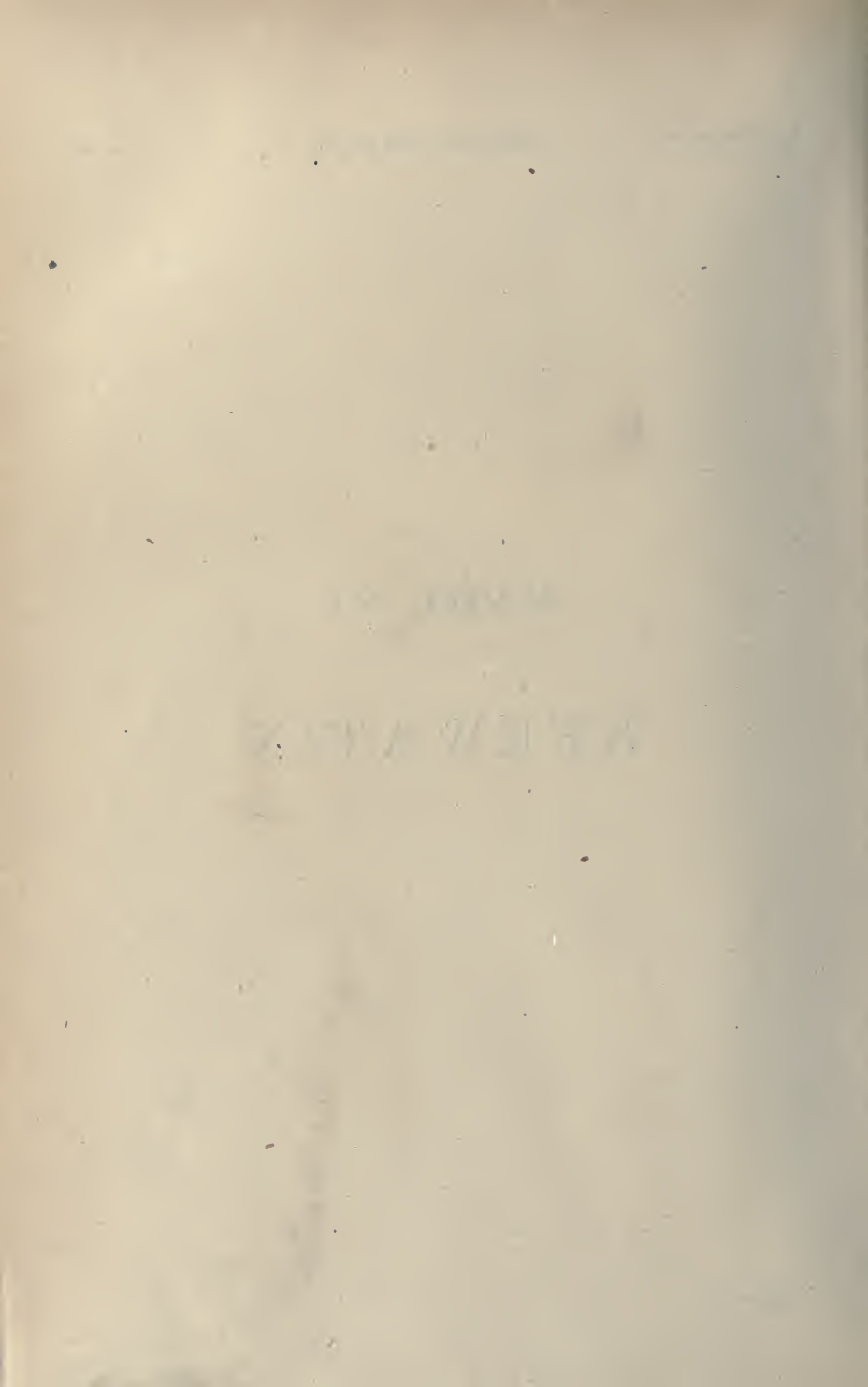


No. 10.—BURGESS MOUNTAIN, EMERALD LAKE.



No. 11.—IN THE SULPHUR POOL BASIN, BANFF.

PART VI
KEEWATIN



REPORT OF HIS HONOUR THE LIEUTENANT GOVERNOR OF
KEEWATIN.

GOVERNMENT HOUSE,

WINNIPEG, August 31, 1904.

The Hon. Clifford Sifton,
Minister of the Interior,
Ottawa.

SIR,—From the information available there is but little to communicate with regard to the life and general well-being of the people in Keewatin that has not been fully dealt with in my former reports.

Besides meeting missionaries of the different denominations, I had the pleasure of seeing on several occasions during the year Mr. Donald McTavish, the chief representative in the district for the Hudson's Bay Company.

The natives are understood to have passed a fairly prosperous year. There has been no very serious outbreak of sickness, and I do not know of privation to any extent having been experienced by any of the bands of Indians scattered throughout the country.

I gather that although an effort was made to communicate from the settlements in Hudson's Bay with the Dominion expedition wintering in the Arctic, this was found not practicable until the summer after communication had been established with the steamer *Erik*, chartered this year by the government.

It is very satisfactory to know of the general success of the expedition, and that no question has been raised regarding the authority of the Dominion government to levy duty on all goods imported into the Arctic Islands, the sovereignty to which had been won generations ago for 'Britain and the British seas' by the fathers of Arctic travel—Parry, the Rosses, Franklin, Rae and others, whose names will be associated for ever with those lands.

Shortly after my last report the peace of the district was disturbed by an event which is happily of rare occurrence. A white man named John McKay struck a young Indian named James Beecham, with whom he was employed on board one of the Fish Company's tugs, a blow on the head, from the effects of which the young Indian died three days later. One of the traders who followed the treaty payment to the Indians, had smuggled into the district a quantity of whisky; this whisky he kept concealed in his boat, but the Indians, becoming aware of the fact that whisky was there, broke into his boat and stole the whisky. McKay became intoxicated, together with a number of others, and the blow was struck during a drunken brawl that followed.

The trader who smuggled the whisky into the district was promptly arrested by order of the local magistrate and was heavily fined, and McKay, who struck the blow, was arrested on a charge of murder. He was given a preliminary hearing at Norway House before J. K. Macdonald, J.P., and formally committed for trial to the common jail at Winnipeg, in the province of Manitoba.

It at once caused the matter to be laid before the Department of Justice at Ottawa, and it was decided, as in the case of the King against Helen Frogg, mentioned in a previous report, to have the trial take place at Norway House within the district. Accordingly, on the 11th day of September, 1903, Chief Justice Dubuc, of the Court of King's Bench for Manitoba; Colin Inkster, sheriff in charge of the prisoner; T. G. Mathers, Crown Prosecutor; James Perkins, court stenographer, and Dr. McLeod, who had attended the young Indian and examined him subsequent to death, and R. A.

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Bonnar, counsel for the defendant, left the city of Winnipeg and proceeded from Selkirk on the steamer *Premier*, belonging to the Dominion Fish Company, to Warren's Landing, and from there were conveyed by tug to Norway House. Here a jury of the neighbourhood was summoned, and after a full and impartial trial, extending over six days, the jury brought in a verdict of acquittal, and the prisoner was released. It appears that McKay, the prisoner, had always borne an excellent character, and the jury, all of whom knew him personally, could not make up their minds to convict a man whom they believed to be innocent of any intentional wrong-doing. I may say that the Crown Prosecutor, after considering all the facts, had reduced the charge from murder to manslaughter, and only indicted the prisoner for the latter offence.

I am informed by the Chief Justice and the Crown Prosecutor that during the journey to and while at Norway House the party received the utmost courtesy and consideration at the hands of Captain Robinson and Mr. Tait, of the Dominion Fish Company, and Chief Factor McTavish and Mr. and Mrs. Sinclair, of the Hudson's Bay Company.

The time is rapidly approaching when some other machinery will have to be established for the administration of justice in this district. Trade is extending over the district and property is being accumulated. The probating of wills and the administration of the estates of intestates is a subject that seems not to be provided for, and I am informed that a number of instances have recently arisen where no machinery could be discovered by which the estate of a deceased person could be administered in the district.

Another question is the protection of game. At present game is slaughtered all the year round. This and a number of other matters will have, in the near future, to receive the attention of the government.

Without specially recommending any course, I submit this suggestion for your consideration.

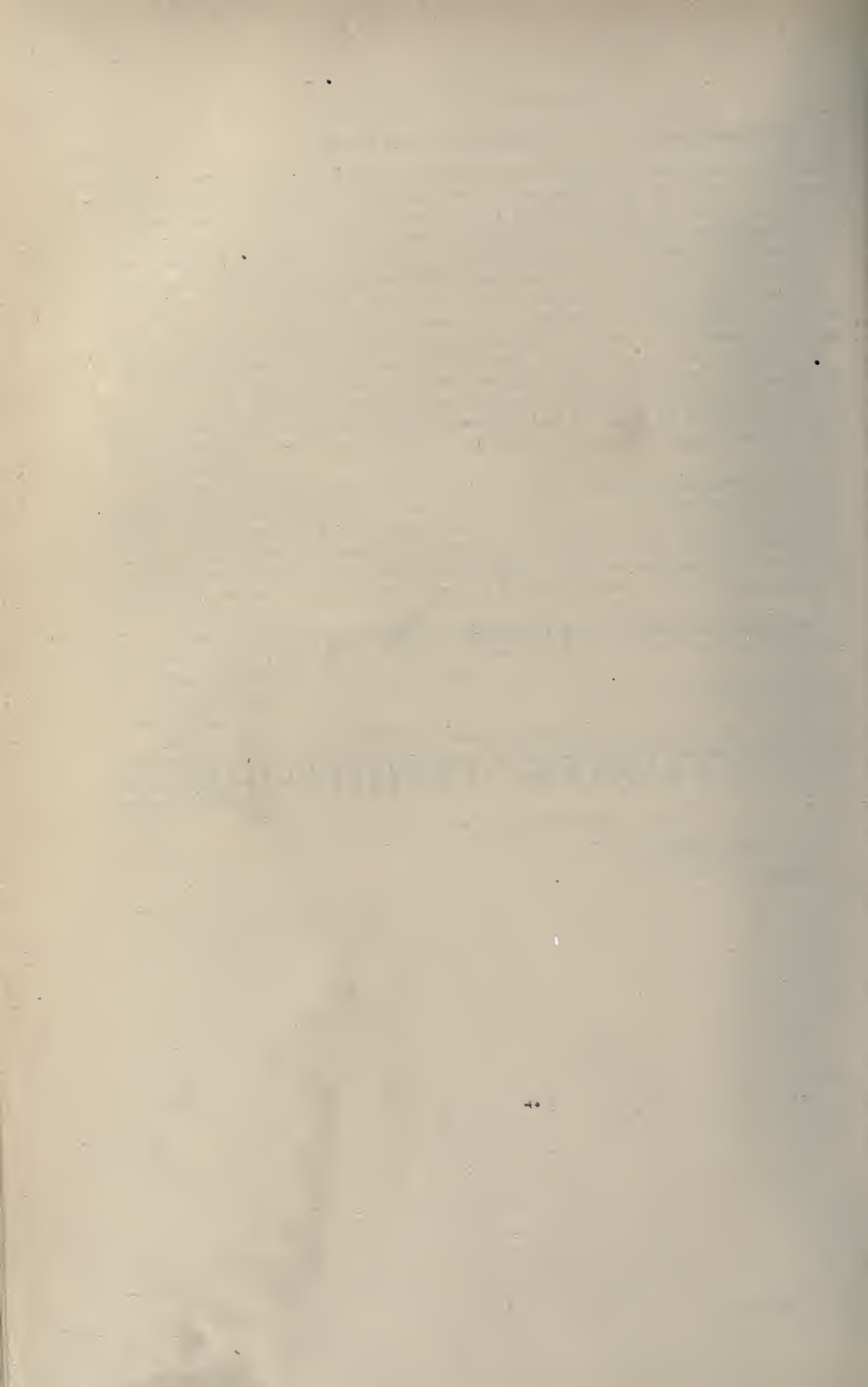
I beg to take this opportunity to thank the missionaries of the different denominations and the Commissioner and officers of the Hudson's Bay Company for the information they have so cordially afforded me regarding the general condition in the farther interior.

I have the honour to be, sir, your obedient servant,

D. H. McMILLAN,
Lieutenant Governor.

PART VII

YUKON TERRITORY



YUKON TERRITORY

REPORT OF THE COMMISSIONER.

COMMISSIONER'S OFFICE,

DAWSON, Y.T., August 10, 1904.

To the Hon. CLIFFORD SIFTON,
Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the annual report of the Yukon Territory for the year ending June 30, 1904.

GENERAL.

The condition of the Yukon at the present time appears satisfactory. While there can be no doubt that there is not now, and probably never again will be, the same opportunity for individuals with little or no capital to work properties and make fortunes therefrom as formerly was frequently done, it should be pointed out that there is a large improvement in the larger operations. Doubtless much small mining will still be done, but it will yearly become smaller in comparison with the operations of larger capitalists. Apart from this change, which must affect every line of business in the territory, it must not be overlooked that in 1897 and 1898, when Dawson probably had a population of not less than 30,000 people, no person was permitted to come into the city who had not at least \$750 in money or money's worth. It would be safe to place the average money possessed by every one who came into Dawson at not less than \$1,000. This would set free within a very small area the enormous sum of \$30,000,000. It was inevitable that with such an amount of money the town should boom as probably no town in the world ever boomed before. Now, however, business has settled down into its various normal channels and has assumed a permanent character which bids fair for future development of the resources of the district. It should be noted in this relation that during this present season Dawson has suffered from a boom given to the Tanana, in Alaska, and to its chief town, Fairbanks. Many substantial men have gone from the Yukon, and many more of those who have constituted our floating population have also departed. Dawson has also suffered from the fact that in 1902 it became incorporated and was obliged to submit to heavy taxation in order to defray civic expenses. Business men immediately began to open business places on the creeks, and each creek has become almost entirely independent of Dawson. Business houses upon the creeks have been able to compete at great advantage with similar establishments in Dawson, because the former were free from taxation and the latter heavily taxed. For this reason, business in the territory generally would appear to be better than in Dawson.

MINING.

At the present time wages upon the creeks are \$5 a day and board, and there are not sufficient men available to supply the demand. As an offset to the falling off in mining in a small way, there is a great improvement in the larger operations. At

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Miller Creek the North American Transportation and Trading Company has expended nearly \$200,000 in constructing ditches, and will soon be prepared to carry on hydraulic mining on a very extensive scale.

Around the hills in the rear of Dawson, Messrs. Acklen and McKenzie are constructing a ditch to bring in water from Moosehide Creek, and ultimately from Twelve-Mile River, and will be prepared, probably in a few weeks and certainly early next season, to do a large amount of mining.

The two undertakings I have mentioned have found it extremely easy to ditch in this country, the soil being easily removed and yet of a character to retain water. The report of the Assistant Gold Commissioner, which accompanies this report, shows a very great activity in regard to water grants. Nearly every such grant means increase of possibility of cheap mining.

Another large venture, which has invested heavily and is doing what appears excellent work, is that of the Detroit Mining Company, at the mouth of Bear Creek. The company has already two steam shovels in operation. Heretofore everything from surface to bed-rock has been taken up by steam shovel, transported to a revolving rifled cylinder, through which it passes, and is in the course of passage washed, with the result of separating the gold from the gravel. The consequence of this mode has been that an immense amount of waste material was unnecessarily freighted and imposed a useless burden upon the cylinder, matting and gold-gathering riffles. The company has now put in operation one steam shovel solely for the purpose of removing the muck and other waste material above the gravel, leaving only the gravel to be removed by the other steam shovel, and then transported to the cylinder and passed through it. The company is also putting in a tramway, and has on the ground engines and freight cars for carrying the gravel to the Klondike, where abundant water is at hand to treat the gravel. When the company's plant is completed, there will be, in addition to the present two steam shovels, a third, of larger capacity, and the tramway and abundant water to which the gravel will be carried, will permit of all three shovels being worked to their fullest capacity. This venture appears to be one of the most promising in the Yukon. A clean-up is had every day, and in this way the company is much better able at any moment to compare its disbursements and receipts than where, as usual, a clean-up is only made at long intervals.

The Pacific Coast Mining Plant on Cheechaco Hill began operations early in the season, and has already removed an enormous quantity of ground by the hydraulic method. The boilers, engines and other machinery of the company have occasioned an investment of more than \$300,000, the engine being of about 350 horse-power. With its pump the engine is able to throw upon the face of the hill, at an elevation of three or four hundred feet, a stream of water equal to about 250 miner's inches.

Mr. Alexander McDonald has installed a magnificent pumping plant at the foot of Dago Hill on Hunker Creek, and is operating on a very large scale.

A large number of schemes have been initiated, and are in course of being put into operation, for impounding some portion of the enormous quantity of waste water lost every spring. Every such scheme which has been submitted has been examined with the greatest care, and every facility possible afforded for its success, without in any way infringing upon the rights of miners.

In addition to these impounding schemes there are in course of construction a large number of ditches of from a few to many miles in length, which will make possible successful hydraulic mining in various portions of the territory.

It may be observed that the gold output for last year decreased by the sum of \$1,329,825.07 from that of the preceding year, the output of gold for the year ending June 30, 1903, upon which royalty was paid being \$12,110,723.09, and the corresponding output for the year ending June 30, 1904, being \$10,780,898.02. The decrease was due to various causes, chief of which was the fact that the summer of 1903 was extremely dry. For a long period of time there was not upon many of the creeks even a sluice-head of water to be obtained, and all mining was at a standstill. In addition,

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the litigation connected with the Gold Run Mining Company caused the shutting down of that company's plant upon Gold Run Creek.

Further, several properties which were being worked by individuals were consolidated in order to be worked by larger plants under a single management, and produced nothing during the transition period between the old working and working under the larger method. The present season has been very wet, and as far as can be gathered, the output for the year 1904-5 will equal that of last year. It may surpass it, if a number of ditches which are being constructed and plants which are being installed are ready for work early next spring.

Marvellous results have been obtained from re-working of old grounds on Eldorado. On that phenomenal creek the early miners found such extraordinarily rich pay-streaks that they in their mines deliberately passed over ground which is now yielding wealth to new workers.

The report of Mr. A. J. Beaudette, Government Mining Engineer, which accompanies this report, with the report of the Assistant Gold Commissioner already referred to, give more minute information with regard to mining in the Yukon. The report of the Gold Commissioner shows the condition of mining litigation.

LAND AND TIMBER.

It will be noticed from the report of the Crown Timber and Land Agent, which I forward herewith, that considerable activity has been exhibited in regard to coal. A recent discovery at Tantalus of a fine vein of coal on the bank of the Yukon, has created hopes that coal may soon be mined and delivered at Dawson at a very moderate figure. Cheap fuel would mean abundant power, and that is all that is necessary in order to make successful cheap mining. A scheme is now on foot to mine coal at Tantalus on a large scale, and it is thought that this can be done and the coal placed on barges at the mouth of the mine at a cost of \$1. per ton. If this is so, it will be possible to deliver coal at Dawson for \$4 a ton, and the difficulty of want of wood will be overcome.

FINANCE.

The report of the Comptroller and the accounts of the revenue and expenditure for the last fiscal year are sent herewith for your information. The accounts show that the expectation of a surplus, expressed in the report of last year, has been fulfilled, and that there is a surplus to the credit of the local revenues of \$40,230.18 for the year ending June 30 last. The estimated revenue for the present year will enable all present roads to be maintained, and a number of new ones of pressing necessity to be constructed without any danger of a deficit at the end of the current year.

POLICE.

It will be a pleasure to note that the criminal statistics of the Yukon for the last year show much less crime than in any former year. This is largely due to the police, who, during the year, have performed their duties in their usual thorough and careful manner. Criminals have become so familiar with the efficiency of the police force as to be timid of attempting their operations in the Yukon.

TRADE.

It is not necessary to add anything to my introductory remarks on this subject except to say that the rush to the Tanana has enabled some of our large business houses to get rid of an immense amount of old stock, which would have taken many years to have disposed of in the Yukon. The companies and the banks report collections excel-

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lent, and I think that there are fewer unpaid bills in the Yukon than at any former time in its history.

SCHOOLS.

I cannot close without reference to the work of the schools which have been established in the territory. Particulars of their operations will be found in the report of the Superintendent of Schools, which accompanies this report. I would add to that report that I do not believe that in any part of the continent better common schools can be found than those existing to-day in Dawson. Teachers of the best character and standing have been secured, and their work has produced a wonderful result upon the youth of Dawson. The establishment of good schools was necessary in order to secure a stable population for the territory. As a result of their establishment many families are established here and will continue. The pupils in these schools are certainly remarkably bright. They are cosmopolitan in character, and the mingling of pupils from all parts of the world has probably produced as advanced a body of children as can be found in the world. The territory has, of course, expended a large sum in educating the children of foreign parents, but I do not think that this is a matter of any regret. If it could be more generally pursued and a certain percentage of the children of every nation educated in the schools of each other nation, I believe the result would be a much better understanding between nations.

OTHER REPORTS.

I beg also to hand you the following reports, as to which I deem it unnecessary to make any further remarks :—

Of the Director of Surveys, a federal officer, and of the following officers in respect to territorial matters :

1. Of the Comptroller.
2. Of the Territorial Secretary.
3. Of the Government Mining Engineer.
4. Of the Territorial Health Officer.
5. Of the Inspectors of Boilers.
6. Of the Superintendent of Public Works.
7. Of the Chief License Inspector.
8. Of the Superintendent of Schools.
9. Of the Territorial Engineer.

I may add that with very few exceptions, all the officials in the service of either the federal or local government in the Yukon Territory, have discharged their duties, as far as I can ascertain, in an efficient, upright and satisfactory manner.

I have the honour to be, sir, your obedient servant,

FRED. T. CONGDON.

Commissioner.

REPORT OF THE GOLD COMMISSIONER.

DAWSON, Y.T., August 8, 1904.

The Honourable FRED. T. CONGDON,
Commissioner, Dawson, Y.T.

SIR,—I beg to hand you herewith my report for the year ending June 30, 1904.

During the year past 84 protests have been filed in the Gold Commissioner's court. This is a slight reduction from the previous year, when 99 protests were entered.

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On the old creeks, that is, Bonanza, Eldorado, Hunker, Sulphur, Dominion and Gold Run the litigation has been fairly well settled. Most of the cases now being heard are with relation to conflicts of claims on the newer creeks.

Three protests were heard at Duncan and one at White Horse.

The chief difficulty that litigants have to contend with is in relation to water disputes. Owing to the claims being so close together on the gold-bearing ground, the difficulty is that they all require water, and for the greater portion of the summer season there is not sufficient water for all miners to carry on their operations at the same time. As time goes on probably the disputes will extend more to the outlying districts, such as White Horse, Duncan Creek, Livingstone Creek and Fortymile in the Forty-mile district. This will necessitate going to these different points at different times during the year to hear any disputes that may be on in order to save litigants the expense of travelling to Dawson.

I have the honour to be, sir, your obedient servant,

E. C. SENKLER,

Gold Commissioner.

REPORT OF THE ASSISTANT GOLD COMMISSIONER.

DAWSON, Y.T., August 9, 1904.

The Hon. FRED. T. CONGDON,
Commissioner of the Yukon Territory,
Dawson, Y.T.

SIR,—I beg to inclose herewith the annual financial report for this office for the fiscal year ending June 30 last, embodying therein returns from the outside mining recorders' offices and from the mining inspectors' offices in the Yukon Territory for the period commencing June 1, 1903, and ending May 31, 1904, with the exception, however, of the returns from the Sixty-mile mining district for the months of April and May last which were received too late last July to be embodied in the financial statement in question.

The total receipts shown by the inclosed statement amount to the sum of \$216,833.52; the total receipts for the previous corresponding period, with the exception, however, of the two months of April and May last for the Sixty-mile mining district, as hereinabove stated, amounted to the sum of \$289,525.14, showing a decrease of \$72,691.62.

This decrease does not mean a corresponding decrease of business, but is due almost entirely to the reduction of fees (which took effect on May 7, 1903), for placer mining fees called for by the placer mining regulations, and also to the reduction of fees for free miner's certificates, which reductions were from \$15 to \$10 for placer mining, and from \$10 to \$7.50 for free miner's certificates.

The decrease of revenue would have been much larger had it not been for the new diggings in the Alsek, Kluane and Kaskwulsh divisions of the White Horse mining district, now forming the Kluane mining district, where 23,658 mining claims were granted during the period hereinabove mentioned, ending May 31 last; and also for the Duncan Creek mining district and for the Clear Creek mining district, where a large number of placer mining claims were granted during the corresponding period.

During the fiscal year ending June 30 last the Dalton Trail mining district was abolished and the Territory comprised within its limits was added to the White Horse mining district by proclamation of yourself, dated November 9 last. The two mining

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inspectors, Messrs. Percy Reid and Lockie T. Burwash, who were sent out to these diggings last March with instructions to make a thorough investigation of the conditions which obtained in connection with mining, and who returned to White Horse at the end of June last, and who have been in Dawson for some time, are of the opinion that although these diggings have not as yet been thoroughly proven, the country is one of large possibilities, and that there is a tract of country 100 miles by 150 which is intersected by innumerable creeks of all sizes, on many of which streams gold has been found in varying quantities, of which many may prove of value when properly prospected.

The Duncan mining district has not yet produced much gold, although the claim-owners on Duncan Creek proper are satisfied that there is gold in large quantities in the said creek, but the difficulties which they have met with by reason of water have retarded the development of mining in that locality. During the summer of 1903 a large number of claims were staked on other tributaries of Mayo River, and also on some tributaries of Mayo Lake which have since given good promises, namely, Highet Creek and Ledger Creek.

The Clear Creek mining district has given since last year better promises than in the past of it becoming a good producer.

The old diggings on Glacier and Miller Creeks have given to the claim-owners satisfactory results for their operations since last year.

The Stewart River mining district has given poor results to the claim-owners during the period ending May 31 last; there being very few claims kept in good standing during the said period and the production of gold having been very limited.

As regards the Pelly mining district, there was a stampede to the upper Pelly River last summer which, however, resulted in disappointment for the parties who took part in it. Thirty-three claims were staked and recorded at that time, but it is doubtful if any of them will be renewed.

As regards the Hootalingua mining district, no new ground has been located during the period hereinabove referred to, but there has been some re-location done, and there are about the same number of claims kept in good standing as during the previous corresponding period.

The Fortymile mining district has not brought any change to the conditions as they obtained during the previous corresponding period, there being very little placer mining done in that district and no quartz mining at all.

As regards the Dawson district which, as you are aware, comprises the tributaries of the Klondike and Indian Rivers, very little new ground has been located during the last fiscal year. There has been, however, a good deal of re-location going on, and there has been about the same number of renewals as for the previous corresponding period.

There has been a very large increase of water grants issued during the last fiscal year, which means a considerable amount of work for the mining recorder in charge of that branch and myself.

There has been a decrease of \$2,742.50 in the amount of fees collected for recording documents in the placer mining branch of this office.

There has been a decrease of \$9,650 for money paid in lieu of assessment work for placer mining claims, but this is accounted for by the fact that the regulations allowing the payment of \$200 in lieu of work were rescinded from August 1, 1903.

Regarding the quartz branch of this office, the financial statement shows a decrease of \$3,860 in the receipts for quartz records or certificates; a decrease of \$930.55 in the receipts from recording registered documents; a decrease of \$102.50 in the receipts from certificates of partnership; a decrease of \$835 in the receipts from certificates of work; a decrease of \$5,600 in the receipts from payments in lieu of assessment work; a decrease of \$923.89 in the receipts from Crown grants, and an increase of \$311.07 in the receipts from acreage of land covered by mineral claims.

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Regarding hydraulic leases, I beg to report that seven leases were cancelled during the last fiscal year, viz.:

Lease No. 4 for the E. Griffith location on the ancient bed of the Stewart River, cancelled on March 1 last;

Lease No. 6 for the Dome Yukon Gold Mining Company on Australia Creek, cancelled on March 15 last;

Lease No. 7 for the Peter R. Ritchie et al. location on the Indian River, cancelled on April 1 last;

Lease No. 17 for the British-Canadian Gold Fields, Limited, location on Cassiar Creek, cancelled on May 20 last;

Lease No. 23 for the E. W. Mutch location on Indian River, cancelled on February 15 last;

Lease No. 25 for the O. S. Lanning location on Indian River, cancelled on February 16 last.

Lease No. 39 for the Taylor, Gordon and O'Connell location in the ancient bed of the Stewart River, cancelled on April 25 last.

Not a single hydraulic mining lease has been issued during the last fiscal year.

Accompanying the financial statement is a statement showing the number of instruments issued during the period covered by said financial statement, and showing also approximately the number of instruments issued during the previous corresponding period; which statement gives a better idea of the business transacted at this office and at the several mining inspectors' and mining recorders' offices during the said two respective periods.

I have the honour to be, sir, your obedient servant,

F. X. GOSSELIN,
Assistant Gold Commissioner.

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FINANCIAL STATEMENT of the Gold Commissioner's Office from July 1, 1903, to June 30, 1904.

| Folio. | | Amount. | Totals. |
|--------|--|-----------|-----------|
| | | \$ cts. | \$ cts. |
| | DAWSON. | | |
| 8 | To Free miners' certificates | | 27,496 50 |
| | PLACER, DAWSON. | | |
| 21 | To Grants | 2,030 00 | |
| 46 | Renewals | 44,605 00 | |
| 64 | Re-locations | 13,650 00 | |
| 82 | Registered documents | 12,325 50 | |
| 100 | Certificate of work | 9,246 00 | |
| 111 | Lieu of assessment | 4,550 00 | |
| 113 | Abstracts | 294 00 | |
| 111 | Water grants | 872 50 | |
| 112 | Amended application | 15 00 | |
| 123 | Advance deposit | 2,024 23 | 89,612 23 |
| | QUARTZ, DAWSON. | | |
| 127 | To Grants | 990 00 | |
| 138 | Certificate of work | 1,440 00 | |
| 145 | Certificate of partnership | 87 50 | |
| 150 | Registered documents | 494 80 | |
| 159 | Lieu of assessment | 1,200 00 | |
| 165 | Crown grant | 240 41 | |
| 168 | Abstracts | 7 50 | 4,460 21 |
| | QUARTZ, CROWN GRANT. | | |
| 167 | To Acreage | | 311 07 |
| | HYDRAULICS. | | |
| 169 | To Registered documents and rental | | 8,244 95 |
| | The following documents were issued between June 1, 1903, and May 31, 1904. April and May, Sixtymile excepted. | | |
| | DOMINION. | | |
| 203 | To Free miners' certificates | 3,994 00 | |
| 204 | Inspection of work performed. | 5 00 | 3,999 00 |
| | HUNKER. | | |
| 205 | To Free miners' certificates | 2,867 50 | |
| 206 | Inspection of work performed | 12 50 | 2,880 00 |
| | SULPHUR. | | |
| 207 | To Free miners' certificates | | 1,896 00 |
| | GRAND FORKS. | | |
| 209 | To Free miners' certificates | 6,712 50 | |
| 210 | Inspection of work performed | 15 00 | |
| 211 | Royalty Eldorado gusher | 139 75 | 6,867 25 |
| | GOLD RUN. | | |
| 213 | To Free miners' certificates | | 2,750 50 |

SESSIONAL PAPER No. 25

FINANCIAL STATEMENT of the Gold Commissioner's Office from July 1, 1903, to June 30, 1904.—*Continued.*

| Folio. | | Amount. | Totals. |
|--------|-------------------------------------|-----------|-----------|
| | | \$ cts. | \$ cts. |
| | SELKIRK. | | |
| 215 | To Free miners' certificates..... | 300 00 | |
| 216 | Quartz, grants..... | 10 00 | |
| 217 | Placer "..... | 330 00 | |
| 218 | " registered documents..... | 4 00 | |
| 219 | Quartz " "..... | 2 50 | |
| | | | 646 50 |
| | STEWART RIVER. | | |
| 225 | To free miners' certificates..... | 627 50 | |
| 226 | Placer grants..... | 20 00 | |
| 227 | Renewals..... | 1,150 00 | |
| 228 | Re-locations..... | 290 00 | |
| 229 | Quartz, grants..... | 15 00 | |
| 230 | " certificate of work..... | 27 50 | |
| 231 | To Placer certificate of work..... | 250 00 | |
| 232 | " registered document..... | 124 00 | |
| 233 | Quartz " "..... | 17 50 | |
| 234 | " certificate of partership..... | 2 50 | |
| | | | 2,524 00 |
| | WHITEHORSE. | | |
| 235 | To Free miners' certificates..... | 8,917 50 | |
| 236 | Quartz certificate of work..... | 297 50 | |
| 237 | " " partnership..... | 27 50 | |
| 238 | " crown grant..... | 147 06 | |
| 238 | " lieu assessment..... | 100 00 | |
| 240 | " registered documents..... | 85 00 | |
| 240 | " grants..... | 245 00 | |
| 241 | Placer "..... | 28,650 00 | |
| 242 | " certificates of work..... | 24 00 | |
| 243 | " renewals..... | 10 00 | |
| 244 | " registered documents..... | 1,674 50 | |
| | | | 35,178 06 |
| | HOOTALINQUA. | | |
| 245 | To Free miners' certificates..... | 477 50 | |
| 246 | Re-locations..... | 280 00 | |
| 247 | Renewals..... | 1,140 00 | |
| 248 | Quartz grants..... | 60 00 | |
| 249 | Placer certificate of work..... | 170 00 | |
| 250 | " registered documents..... | 214 00 | |
| 251 | Quartz certificate of work..... | 7 50 | |
| 252 | " registered documents..... | 15 00 | |
| 253 | Water grant..... | 2 50 | |
| | | | 2,366 50 |
| | FORTYMILE. | | |
| 255 | To Free miners' certificates..... | 215 00 | |
| 256 | Re-locations..... | 140 00 | |
| 257 | Renewals..... | 250 00 | |
| 258 | Placer certificates of work..... | 44 00 | |
| 259 | " grants..... | 60 00 | |
| 260 | " registered documents..... | 35 50 | |
| 261 | Quartz certificate partnership..... | 2 50 | |
| 262 | " " work..... | 5 00 | |
| | | | 752 00 |

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FINANCIAL STATEMENT of the Gold Commissioner's Office from July 1, 1903, to June 30, 1904—*Concluded.*

| Folio. | | Amount. | Totals. |
|--------|-----------------------------------|------------|------------|
| | | \$ cts. | \$ cts. |
| | DUNCAN. | | |
| 265 | To Free miners' certificates..... | 1,927 00 | |
| 266 | Placer grants..... | 6,895 00 | |
| 267 | Renewals..... | 3,970 00 | |
| 268 | Placer Certificate of work..... | 1,070 00 | |
| 269 | " registered documents..... | 942 00 | |
| 270 | Re-locations..... | 555 00 | |
| 271 | Quartz grants..... | 30 00 | |
| 272 | " registered documents..... | 8 50 | |
| 273 | " certificate of partnership..... | 2 50 | |
| 274 | Water grant..... | 2 50 | |
| | | | 15,402 50 |
| | CLEAR CREEK. | | |
| 275 | To Free miners' certificates..... | 805 00 | |
| 276 | Renewals..... | 3,755 00 | |
| 277 | Placer certificate of work..... | 280 00 | |
| 278 | " registered documents..... | 225 50 | |
| 279 | Re-locations..... | 2,165 00 | |
| 280 | Placer grants..... | 940 00 | |
| 281 | Quartz "..... | 5 00 | |
| 282 | " certificate of work..... | 2 50 | |
| 283 | Water grant..... | 2 50 | |
| | | | 8,180 50 |
| | DALTON TRAIL. | | |
| 297 | To Free miners' certificates..... | | 150 00 |
| | SIXTYMILE. | | |
| 285 | To Free miners' certificates..... | 805 00 | |
| 286 | Re-locations..... | 4 00 | |
| 287 | Renewals..... | 795 00 | |
| 288 | Certificate of work, placer..... | 148 00 | |
| 289 | Registered document "..... | 172 75 | |
| 290 | Quartz grants..... | 5 00 | |
| 291 | Placer "..... | 690 00 | |
| 292 | Water "..... | 100 00 | |
| | | | 3,115 75 |
| | CREDITS. | | 216,833 52 |
| 182 | By Receiver General..... | 214,012 44 | |
| 193 | Balance..... | 2,362 03 | |
| 299 | G. C. Suspense account..... | 459 00 | |
| | | | 216,833 52 |

T. M. McKAY,
Accountant.

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INSTRUMENTS issued during the fiscal year ending June 30, 1904.

| | Free Miners' Certificates. | Placer Grants. | Renewals. | Re-locations. | Placer—Registered Documents. | Placer—Certificates of work. | Placer—Lien of Assessment. | Abstracts. | Amended Applications. | Water Grants. | Quartz Grants. | Quartz—Certificates of work. | Quartz—Certificates of Partnership. | Quartz—Registered Documents. | Quartz—Crown Grants. | Quartz—Lien of Assessment. | Quartz Abstracts. | Hydraulics. | Inspection of work performed. | Cusher Royalty. |
|--|----------------------------|----------------|-----------|---------------|------------------------------|------------------------------|----------------------------|------------|-----------------------|---------------|----------------|------------------------------|-------------------------------------|------------------------------|----------------------|----------------------------|-------------------|-------------|-------------------------------|-----------------|
| Dawson..... | 3,011 | 194 | 4,418 | 1,356 | 3,608 | 5,113 | 24 | 49 | 3 | 122 | 200 | 583 | 32 | 102 | 16 | 12 | 20 | 3 | 18 | 1 |
| Dominion..... | 507 | | | | | | | | | | | | | | | | | | | 1 |
| Hunker..... | 354 | | | | | | | | | | | | | | | | | | | 2 |
| Sulphur..... | 244 | | | | | | | | | | | | | | | | | | | 3 |
| Grand Forks..... | 771 | | | | | | | | | | | | | | | | | | | 2 |
| Gold Run..... | 352 | | | | | | | | | | | | | | | | | | | 7 |
| Selkirk..... | 40 | 30 | | | 2 | | | | | | 2 | | | 1 | | | | | | |
| Stewart..... | 82 | 2 | 110 | 29 | 60 | 95 | | | | | 8 | 2 | 1 | 3 | | | | | | |
| Whitehorse..... | 1,173 | 2,369 | 1 | | 573 | 10 | | | | | 43 | 81 | 11 | 30 | 8 | 1 | | | | |
| Hootalingua..... | 44 | | 77 | 28 | 47 | | | | | | | | | | | | | | | |
| Fortymile..... | 29 | 7 | 17 | 14 | 17 | 15 | | | | | | 2 | 1 | 1 | | | | | | |
| Duncan..... | 244 | 660 | 376 | 54 | 335 | 513 | | | | | 6 | | 1 | | | | | | | |
| Clear..... | 100 | 94 | 126 | 237 | 90 | 127 | | | | 1 | 1 | 1 | | | | | | | | |
| Dalton Trail..... | 25 | | | | | | | | | | | | | | | | | | | |
| Sixty mile..... | 102 | 70 | 71 | 39 | 71 | 74 | | | | 2 | 1 | | | | | | | | | |
| Totals, June, 1904..... | 7,078 | 3,429 | 5,196 | 1,757 | 4,803 | 5,947 | 24 | 49 | 3 | 126 | 261 | 669 | 46 | 137 | 24 | 13 | 20 | 3 | 18 | 6 |
| Approximate totals, June, 1903..... | 7,711 | 1,893 | 5,214 | 2,069 | 5,814 | 5,666 | 71 | 84 | 12 | 139 | 1,035 | 932 | 90 | 680 | 21 | 21 | | 27 | | 34 |

T. M. McKAY,
Accountant.

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RECAPITU

FINANCIAL STATEMENTS, Gold Commissioner's

| | Free Miners' Certificates. | Placer Grants. | Renewals. | Re-locations. | Placer-- Registered Documents. | Placer-- Certificate of work. | Placer--Lien of Assessments. | Abstracts. | Water grants. | Amended applications. |
|----------------|-------------------------------|----------------|-----------|---------------|--------------------------------------|-------------------------------------|---------------------------------|------------|---------------|--------------------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ |
| Dawson..... | 27,496 50 | 2,030 00 | 44,605 00 | 13,650 00 | 12,325 50 | 9,246 00 | 4,550 | 294 00 | 872 50 | 15 |
| Dominion..... | 3,994 00 | | | | | | | | | |
| Hunker..... | 2,867 50 | | | | | | | | | |
| Sulphur..... | 1,896 00 | | | | | | | | | |
| Grand Forks. | 6,712 50 | | | | | | | | | |
| Gold Run..... | 2,750 50 | | | | | | | | | |
| Selkirk..... | 300 00 | 330 00 | | | 4 00 | | | | | |
| Stewart..... | 627 50 | 20 00 | 1,150 00 | 290 00 | 124 00 | 250 00 | | | | |
| Whitehorse.. | 8,917 50 | 23,650 00 | 10 00 | | 1,674 50 | 24 00 | | | | |
| Hootalingua. | 477 50 | | 1,140 00 | 280 00 | 214 00 | 170 00 | | | 2 50 | |
| Fortymile... | 215 00 | 60 00 | 250 00 | 140 00 | 35 50 | 44 00 | | | | |
| Duncan..... | 1,927 00 | 6,895 00 | 3,970 00 | 555 00 | 942 00 | 1,070 00 | | | 2 50 | |
| Clear..... | 805 00 | 940 00 | 3,755 00 | 2,165 00 | 225 50 | 230 00 | | | 2 50 | |
| Dalton Trail.. | 150 00 | | | | | | | | | |
| Sixtymile.... | 805 00 | 690 00 | 795 00 | 400 00 | 172 75 | 148 00 | | | 100 00 | |
| | 59,941 50 | 34,615 00 | 55,675 00 | 17,480 00 | 15,717 75 | 11,232 00 | 4,550 | 294 00 | 980 00 | 15 |

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LATION.

Office, July 1st, 1903, to June 30, 1904.

| Quartz grants. | Quartz— Certificate of work. | Quartz— Certificate of partnership. | Quartz— Registered documents. | Quartz— Crown grant. | Quartz—Lieu of Assessment. | Quartz— Acreage. | Quartz— Abstract. | Hydraulics. | Inspection of work Performed. | Gusher royalty. | Advance Deposit. | Total. |
|----------------|------------------------------------|---|-------------------------------------|-------------------------|-------------------------------|---------------------|----------------------|-------------|-------------------------------------|-----------------|---------------------|------------|
| \$ cts. | \$ cts. | \$ c. | \$ c. | \$ c. | \$ cts. | \$ c. | \$ c. | \$ cts. | \$ c. | \$ c. | \$ cts. | |
| 990 00 | 1,440 00 | 87 50 | 494 80 | 240 41 | 1,200 00 | 311 07 | 7 50 | 8,244 95 | 5 00 | ..... | 2,024 23 | |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 12 50 | ..... | ..... |  |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 15 00 | 139 75 | ..... |  |
| 10 00 | ..... | ..... | 2 50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |
| 15 00 | 27 50 | 2 50 | 17 50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |
| 245 00 | 297 50 | 27 50 | 85 00 | 147 06 | 100 00 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| 60 00 | 7 50 | ..... | 15 00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |
| ..... | 5 00 | 2 50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |
| 30 00 | ..... | 2 50 | 8 50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |
| 5 00 | 2 50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |
| 5 00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |
| 1,360 00 | 1,780 00 | 122 50 | 623 30 | 387 47 | 1,300 00 | 311 07 | 7 50 | 8,244 95 | 32 50 | 139 75 | 2,024 23 | 216,833 52 |

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COMPARATIVE Statement, Returns Gold Commissioner's Office.

| | Year ending June 30, 1903. | Year ending June 30, 1904. | 1904. — Increase. | 1904. — Decrease. |
|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------|-------------------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Free miners' certificates..... | 80,134 50 | 59,941 50 | | 20,193 00 |
| Placer grants..... | 27,550 00 | 34,615 00 | 7,065 00 | |
| Renewals..... | 78,135 00 | 55,675 00 | | 22,460 00 |
| Re-locations..... | 28,765 00 | 17,480 00 | | 11,285 00 |
| Registered documents—placer..... | 18,460 25 | 15,717 75 | | 2,742 50 |
| Certificate of work—placer..... | 11,332 00 | 11,232 00 | | 100 00 |
| Lieu of assessment—placer..... | 14,200 00 | 4,550 00 | | 9,650 00 |
| Abstracts..... | 633 00 | 294 00 | | 339 00 |
| Water grants..... | 632 50 | 980 00 | 347 50 | |
| Amended applications..... | 60 00 | 15 00 | | 45 00 |
| Court fees..... | 37 50 | | | 37 50 |
| Quartz grants..... | 5,220 00 | 1,360 00 | | 3,860 00 |
| Quartz—registered documents..... | 1,553 85 | 623 30 | | 930 55 |
| " certificate of partnership..... | 225 00 | 122 50 | | 102 50 |
| " " work..... | 2,615 00 | 1,780 00 | | 835 00 |
| " lieu of assessment..... | 6,900 00 | 1,300 00 | | 5,600 00 |
| " crown grants..... | 1,311 36 | 387 47 | | 923 89 |
| " " acreage..... | | 311 07 | 311 07 | |
| Hydraulics..... | 9,114 46 | 8,244 95 | | 869 51 |
| Inspection of work..... | 217 00 | 32 50 | | 184 50 |
| Advance deposits..... | 2,362 08 | 2,024 23 | | 337 85 |
| Quartz abstract..... | | 7 50 | 7 50 | |
| Cusher royalty..... | | 139 75 | 139 75 | |
| Gold royalty..... | 1 14 | | | 1 14 |
| No. 1 Mint gulch..... | 65 50 | | | 65 50 |
| | 289,525 14 | 216,833 52 | 7,870 82 | 80,562 44 |

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COMPARATIVE Statement, Returns Gold Commissioner's Office.

| | Year ending June 30, 1902. | Year ending June 30, 1903. | 1903. — Increase. | 1903. — Decrease. |
|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------|-------------------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Free miners' certificates..... | 141,161 50 | 80,134 50 | ..... | 34,027 00 |
| Placer grants..... | 65,310 00 | 27,550 00 | ..... | 37,766 00 |
| Renewals..... | 75,720 00 | 78,135 00 | 2,415 00 | ..... |
| Re-locations..... | 39,885 00 | 28,765 00 | ..... | 11,120 00 |
| Registered documents—placer..... | 22,076 50 | 18,460 25 | ..... | 3,616 25 |
| Certificate of work—placer..... | 10,476 00 | 11,332 00 | 856 00 | ..... |
| Lieu of assessment—placer..... | 18,250 00 | 14,200 00 | ..... | 4,050 00 |
| Abstracts..... | 1,419 00 | 633 00 | ..... | 786 00 |
| Water grants..... | 387 50 | 632 50 | 245 00 | ..... |
| Amended applications..... | 90 00 | 60 00 | ..... | 30 00 |
| Court fees..... | 3,075 00 | 37 50 | ..... | 3,037 50 |
| Quartz grants..... | 5,890 00 | 5,250 00 | ..... | 670 00 |
| Quartz—registered documents..... | 1,561 75 | 1,553 85 | ..... | 7 90 |
| " certificate of partnership..... | 157 50 | 225 00 | 67 50 | ..... |
| " certificate of work..... | 2,072 50 | 2,615 00 | 542 50 | ..... |
| " lieu of assessment..... | 3,100 00 | 6,900 00 | 3,800 00 | ..... |
| " crown grants..... | 244 43 | 1,311 36 | ..... | 1,066 93 |
| Hydraulics..... | 4,611 73 | 9,114 46 | 4,502 73 | ..... |
| Inspection of work..... | 240 00 | 217 00 | ..... | 23 00 |
| Advance deposit..... | 6,573 75 | 2,362 68 | ..... | 4,211 67 |
| Government auction sale..... | 9 00 | ..... | ..... | 9 00 |
| " Reserve tract..... | 95 25 | ..... | ..... | 95 25 |
| Royalty..... | 242,186 24 | 1 14 | ..... | 242,185 10 |
| Forfeited fees..... | 6,811 50 | ..... | ..... | 6,811 50 |
| Leonard claim..... | 102 87 | ..... | ..... | 102 87 |
| No. 1 Mint gulch..... | ..... | 65 50 | 65 50 | ..... |
| Totals..... | 624,507 02 | 289,525 14 | 14,561 16 | 349,543 04 |

REPORT OF THE GOVERNMENT MINING ENGINEER.

DAWSON, August 8, 1904.

Hon. F. T. CONGDON,
Commissioner of the Yukon Territory,
Dawson, Y.T.

SIR,—I have the honour to submit to you the following report in connection with the work under my charge for the fiscal year ending June 30 last.

HYDRAULIC LEASES.

The term 'hydraulic' is used when water under pressure is discharged through a nozzle against a natural bank.

On account of the lack of water and the expense connected with its transmission to high levels, only a few leases have been operated on a large scale.

Bonanza Creek.—The existing leaseholds on this creek are: the Matson *et al.*, the J. J. Doyle *et al.*, and the Bronson & Ray.

The Matson *et al.* and the Doyle *et al.* being owned by the same people, it was proposed to work both leaseholds by a common water system, although the representation work must be done on each leasehold separately.

The water system was installed during the fall of 1903 at a cost of over \$19,000. The length of the water conduits, such as flumes and ditches, is in the neighbourhood of four miles, with a capacity of 800 miner's inches, the point of diversion being on Stampede Gulch and Adams Creek.

This location is so situated that the dumping-ground facilities are very poor, so that claims situated on the rim had to be bought to get an out-let to the creek.

These claims were bought, not only for dumping privileges, but also for the water-rights appurtenant to them.

This concession has been working all summer with two giants and a force of 16 men per shift.

Miller Creek.—This leasehold is owned by the North American Transportation and Trading Company.

This company has done more towards developing alluvial deposits than any other company in the Yukon Territory. It was proposed to instal a water system of 2,000 miner's inches of a capacity to work the Miller Creek bed gravels. In the fall of 1903, 22 miles of ditch were cleared and surveyed, but on account of the shortness of the season, only $7\frac{1}{2}$ miles of ditch were completed. The point of diversion is on Bed Rock Creek, the water is brought to a point on the left limit of Miller Creek and affords a pressure of 450 feet.

As there is too little grade in the creek for the disposal of the tailings, an elevator will be used for the purpose.

The cost up to date of this water system is, according to the manager's statements, \$181,700, and the force of men during the operating season is on an average 60.

Hunker Creek.—This location is known as the 'Williams;' it was operated by means of a pumping plant. This work was continued only for a short time, as the expense in connection with the fuel was too great. The company have now surveyed a ditch to convey water from the upper part of the creek to their location, a distance of 5 miles.

Tenmile Creek.—This location is situated on Tenmile Creek, a tributary of the Sixtymile River, about 10 miles above its mouth.

Prospecting has been going on for the last year and a-half, without any results until recently. The creek was thoroughly prospected at a cost of over \$30,000, with a force of 12 men. It is only lately that sufficient pay was found to warrant further investigation. They are now installing a water system of 4 miles long of 750 miner's inches capacity and a pressure of 150 feet.

Klondike River.—The location situated on this river is owned by J. W. Boyle. The operations are concentrated at the mouth of Bear Creek, where pay was found in claims owned by individual miners. These claims were worked for two years, apparently at a loss, and it is only within the last year that the operations were successful. This success was principally due to a change from the old primitive method to a more modern and extensive one.

At present they are operating with two steam shovels, each having a capacity of 800 cubic yards per day.

Mr. Boyle prospected the ground in the vicinity of this pay during the winter of 1903-1904, and came to the conclusion that the only way to make a success was to operate on a large scale, as at present with steam shovels, as there is not enough grade and water to pursue the hydraulic method.

According to Mr. Boyle's affidavits there was \$25,000 spent on the property in prospecting and development.

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GROUPING OF CLAIMS.

An Order in Council was passed in 1902 to the effect that any number of claims can be grouped together for the purpose of representation provided they are suitable to be worked by the hydraulic method. As there are many claims situated in valleys and flats which cannot be operated that way, except at great expense, but can be worked by the dredge or the steam shovel, this Order in Council was amended to suit these conditions.

Most of the claims so far grouped have been already worked by the placer method and would not pay to be operated the same way, so they are grouped to be operated systematically on a larger scale.

Of the many claims already grouped in this way and operated on a large scale, the Anglo-Klondike group is a very good example. The water system installed by the company cost in the vicinity of \$90,000, and I consider it in perfect shape, the only drawback being the shortage of water in the dry season. Not more than 250 inches of water can be had on an average. I here give you a few data of the company's operations, by which you will see what the output could be if the same amount of water was furnished to all the hills on Bonanza Creek.

A trial run of 22 days with 260 miner's inches under 160 feet pressure gave the following results :—

| | |
|---|-------------|
| Cubic yds. removed. | 29,000 |
| Average depth of bank. | 20 ft. |
| Gross output. | \$35,978 |
| Value per cb. yd. | \$1.24 |
| Cost per cb. yd. (operating only) | \$0.20½ |
| Duty of Miner's inch. | 6.95 cb. yd |

Another run was made with 140 inches of water under 135 feet pressure with the following results :—

| | |
|--|--------------|
| Cubic yards removed. | 22,000 |
| Average depth of bank. | 20 ft. |
| Gross output. | \$14,626 32 |
| Value per cubic yard. | \$0.665 |
| Cost per cubic yard (operating only) | \$0.145 |
| Duty of miner's inch. | 6.16 cb. yd. |

A great deal more gravel was removed than here mentioned, these data being only in connection with special experiments made by the manager in charge.

As one placer claim of 250 feet long up and down the creek and the width of the creek is too small to warrant a large plant to be installed, many individual miners have taken advantage of this grouping system both with unworked and worked placer claims. The operating cost of each method employed changes in accordance with the existing conditions of the country in which the operations are carried on. The quality of the gravel controls the method to be employed, and as the best paying claims are being worked out, as far as the placer method is concerned, it appears that we are entering a transition period during which the output will surely decrease until a method is introduced that will overcome the existing conditions of the territory and work low grade gravels at a profit. That method will be based on one principle, and that is : 'The excavation of the greatest amount of gravel in the shortest space of time.' The placer method, although the most expensive of them all, requires less outlay at first, and rich deposits can be worked at once without much preparation, but I consider that it is impossible to work gravels averaging less than \$2 a cubic yard with men's wages at \$5 per day and board, and the output of a man's work to be taken to be five cubic yards in 10 hours.

Much research work has been done to solve the question as to what would be the best method to introduce here to work low grade gravels, but so far very little success

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has been obtained. Many have installed pumping plants to pump water from the creeks into reservoirs at high levels, but the expense in connection with the fuel is so great that this kind of operation has been disastrous to many. All the pumping plants in the territory but two have shut down.

It appears to me that the method which seems most feasible is the hydraulic method where grade and water can be had and the steam shovel and the dredge for the flats.

NEW MACHINERY INTRODUCED.

Of the many tons of machinery imported into the territory, the newest so far is a placer drill manufactured by the Keystone Driller Co. of Beaver Falls, Pa., made especially to prospect gravels.

These drills have been operated with great success in the vicinity of Oroville, California, in prospecting large tracts of land before buying them for dredging purposes.

This drill has a capacity up to 50 feet per day in accordance with the condition of the material encountered.

I know of one of them being operated here with success.

QUARTZ MILL AND ASSAY OFFICE.

As you are aware from the last year's report, the mill was in a very bad condition, and I thought it not advisable to mill any ore until such time as it was properly equipped with proper appliances to save the concentrates. On the 15th of December last I inspected the mill and found that it met with all the requirements of the contract, and I issued a certificate to that effect.

The mill is under the supervision of Mr. Beraud, who has given very good satisfaction.

During the year 34,675 lbs. of ore have been treated, at an actual cost of \$19 per ton.

THE ASSAY OFFICE.

The office is still in the same location as last year, and it appears it would be very difficult to separate it from the mill, as both must necessarily be worked jointly.

A large number of assays were brought into the office as a result of the establishment of free assays. All kinds of rock were sent in, of which not more than 75 per cent justified a test. On the 1st of November last instructions were issued to the assayer to charge a nominal sum of \$1.50 per assay.

The result of this method has been very successful in bringing to a standstill the influx of undesirable matter; however, a few persons attempted to bring in rock which was salted. All such samples were returned to their owners without being assayed.

During the year 319 assays were made and \$151 was collected since the 1st of November, the time from which the assayer was instructed to charge.

ORDINANCE FOR THE PROTECTION OF MINERS.

The work in the Territory has been concentrated very much during the last year. This fact, as well as the change in operation, has reduced the danger, and only one inspector is needed.

Only eight persons were killed, which is a very small percentage of the number of miners employed in the Territory.

I have the honour to be, sir,

Your obedient servant,

A. J. BEAUDETTE,

Government Mining Engineer.

REPORT OF THE CROWN TIMBER AND LAND AGENT.

DAWSON, August 2, 1904.

Hon. FRED. T. CONGDON,
Commissioner, Y.T.

SIR,—I have the honour to submit my report for the year ending June 30, 1904. Attached hereto please find :

1. Statement of receipts on account of Crown timber, hay permits and royalty on coal.
2. Statement showing the revenue derived from the Dominion Lands Branch.
3. Statement showing timber permits issued.
4. Statement showing hay permits issued; and
5. Statement showing proportions in which this office and sub-agencies have contributed to the general revenue.

The revenue has decreased \$30,243.09. The Timber and Mines Branch shows a decrease of \$20,400.29, due to there being fewer timber berths taken up and to fewer operations being carried on in trespass, seizures being \$15,930.12 less than last year. The Chief Crown Timber Inspector, under date July 1 last, reports as follows:—‘I found no illegal operations on the river, the camps for supplying steamers with wood being in the business permanently and complying with the regulations.’

Dominion lands revenue decreased \$9,942.80, which is due to there being less land sold than during the preceding year and to the fact that land is sold at a lower figure than heretofore, the reduction being made to encourage agricultural industry.

One hundred and fifty-four applications were received for a total area of 8,807'59 acres of Dominion lands during the past year, and the following disposition has been made of the applications in question:—

Sold, 1,119'91 acres, covered by 35 applications.

R.N.W.M.P., 645.42 acres, covered by 24 applications.

Not entertained, 1,132 acres, covered by 9 applications.

Withdrawn, 10 acres, covered by 2 applications.

In abeyance, 4,249 acres, covered by 67 applications.

Indian reservation, 320 acres, covered by 1 application.

Cancelled, 1,331.26 acres, covered by 16 applications.

Aside from the above a few applicants who had filed applications during the year 1902-03, which applications were in abeyance, have paid the first portion of the purchase price in connection with such applications, while again other applications have been cancelled for non-compliance with the regulations.

Twenty applications were received for coal lands for a total area of 3,840 acres, and the following disposition has been made of the said applications:—

Sold, 240 acres, covered by 2 applications.

Cancelled, 1,760 acres, covered by 9 applications.

In abeyance, 1,200 acres, covered by 6 applications.

Not entertained, 320 acres, covered by 2 applications.

Withdrawn, 320 acres, covered by 1 application.

One application was received to lease coal lands, and the same was granted; royalty has been paid on 55 tons of coal sold from the grounds so leased. There was but a small quantity of coal in Dawson during the past winter, and the price asked was such that only a few tons were sold. The price of coal has been reduced to such figure that hereafter more coal will be used than there has been in the past. The Coal Creek Coal Company have constructed a railway from the mouth of Coal Creek up said creek, a distance of 12 miles, to their coal claim. They are now operating the same, and coal can be brought to Dawson and sold at a low figure, to wit, screened

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coal, \$12; screenings, \$10. The British-Yukon Navigation Company are experimenting in the burning of coal in their river steamers.

Thirty applications were received for 59 miles of timber land, and the following disposition has been made of the applications:—

8 applications for 14 miles, granted (timber).

5 applications for 5 miles, granted (wood).

9 applications for 14 miles, in abeyance.

3 applications for 3 miles, not entertained.

5 applications for 23 miles, withdrawn.

I have the honour to be, sir,

Your obedient servant,

H. M. MARTIN.

Crown Timber and Land Agent.

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STATEMENT showing Revenue derived from Dominion Lands for Year ending June 30, 1904.

| Month. | General Sales. | Rentals. | Registration Fees. | Patent Fees. | Survey Fees. | Total. | Remarks. |
|----------------|-------------------|-----------|-----------------------|-----------------|-----------------|-----------|---------------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | |
| 1903. | | | | | | | |
| July..... | 1,151 95 | 283 75 | 14 00 | ..... | ..... | 1,449 70 | |
| August..... | 1,054 97 | 2,510 00 | 8 00 | ..... | ..... | 3,672 97 | |
| September..... | 1,478 13 | 1,135 31 | 10 00 | 10 00 | 100 00 | 2,733 44 | |
| October..... | 712 69 | 43 41 | 16 50 | ..... | 100 00 | 872 60 | |
| November..... | 683 33 | 1,022 10 | 7 00 | ..... | ..... | 1,712 43 | |
| December..... | 4,092 23 | 6 61 | 10 50 | ..... | ..... | 4,109 34 | |
| 1904. | | | | | | | |
| January..... | 624 91 | ..... | 2 00 | ..... | ..... | 626 91 | Dawson Agency |
| February..... | 1,074 15 | ..... | 4 00 | ..... | ..... | 1,078 15 | Whitehorse " |
| March..... | 312 35 | 4 16 | 8 00 | ..... | ..... | 324 51 | Selkirk " |
| April..... | 307 54 | 11,480 00 | 14 00 | ..... | ..... | 11,801 54 | Fortymile..... |
| May..... | 473 36 | 2 06 | 2 00 | ..... | ..... | 477 42 | |
| June..... | 406 19 | 3,022 55 | 4 00 | ..... | ..... | 3,432 74 | |
| Totals..... | 12,371 80 | 19,509 95 | 100 00 | 10 00 | 300 00 | 32,291 75 | |

H. M. MARTIN,
Crown Timber and Land Agent.

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STATEMENT OF Receipts on account of Crown Timber and Hay Lands for Year ending June 30, 1904.

| Month. | Bonus. | Royalty. | Timber Permits. | Seizures. | Inspectors' Fees. | Hay Permits. | Royalty on Coal. | Total. | Remarks. |
|----------------|----------|-----------|-----------------|-----------|-------------------|--------------|------------------|-----------|-----------------------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | |
| 1903. | | | | | | | | | |
| July..... | 1,000 00 | 1,587 26 | 3,104 25 | 627 12 | 10 00 | 204 00 | ..... | 6,532 63 | |
| August..... | | 696 73 | 1,334 25 | 294 59 | ..... | 55 00 | ..... | 2,380 57 | |
| September..... | 750 00 | 1,301 91 | 1,060 50 | 1,565 29 | 80 00 | 4 00 | ..... | 4,761 70 | |
| October..... | 250 00 | 1,762 99 | 1,130 00 | 219 09 | 20 00 | ..... | ..... | 3,382 08 | |
| November..... | 500 00 | 905 25 | 1,282 75 | 1,669 75 | 13 50 | ..... | ..... | 4,371 25 | |
| December..... | | 2,139 92 | 1,239 00 | 276 12 | ..... | ..... | ..... | 3,655 04 | Dawson Agency.... 33,403 00 |
| | | | | | | | | | Whitehorse " 2,957 50 |
| | | | | | | | | | Selkirk " 1,278 40 |
| | | | | | | | | | Stewart " 444 00 |
| | | | | | | | | | Fortymile " 1,878 00 |
| | | | | | | | | | 39,960 90 |
| 1904. | | | | | | | | | |
| January..... | 1,500 00 | 656 64 | 873 75 | 2 50 | ..... | ..... | ..... | 3,032 89 | |
| February..... | | 145 23 | 633 00 | 144 36 | ..... | ..... | ..... | 982 59 | |
| March..... | | 232 26 | 526 50 | 728 33 | ..... | ..... | ..... | 1,487 09 | |
| April..... | 500 00 | 1,181 46 | 767 25 | 346 50 | 10 00 | 5 00 | 2 40 | 2,812 61 | |
| May..... | 1,250 00 | 1,167 46 | 1,080 00 | 27 00 | 155 00 | 92 00 | ..... | 3,771 46 | |
| June..... | | 1,641 57 | 850 72 | 223 10 | ..... | 72 50 | 3 10 | 2,790 99 | |
| Total..... | 5,750 00 | 13,418 68 | 13,941 97 | 6,123 75 | 288 50 | 432 50 | 5 50 | 39,960 90 | |

H. M. MARTIN,
Crown Timber and Land Agent.

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PERMITS issued for Timber for year ending June 30, 1904.

| Agency. | No. | Cords. | Feet of House Logs. | Logs B.M. |
|-----------------|-----|--------|------------------------|-----------|
| Dawson..... | 150 | 13,264 | 3,347 | 125,000 |
| Whitehorse..... | 32 | 4,905 | 5,750 | |
| Selkirk..... | 15 | 1,630 | | |
| Fortymile..... | 19 | 2,303 | | 95,000 |
| Stewart..... | 13 | 730 | | |
| Total..... | 229 | 22,832 | 9,097 | 220,000 |

H. M. MARTIN,
Crown Timber and Land Agent.

PERMITS issued for Hay for year ending June 30, 1904.

| Agency. | No. | Tons. |
|----------------|-----|-------|
| Dawson..... | 49 | 308 |
| Selkirk..... | 7 | 34 |
| Fortymile..... | 2 | 6 |
| Total..... | 58 | 348 |

H. M. MARTIN,
Crown Timber and Land Agent.

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STATEMENT showing Revenue of Agencies and Sub-agencies for year ending June 30, 1904.

| | \$ | cts. |
|----------------------|--------|------|
| Dawson— | | |
| Crown Timber | 33,403 | 00 |
| Dominion Lands | 24,971 | 44 |
| Total | 58,374 | 44 |
| Whitehorse— | | |
| Crown Timber | 2,957 | 50 |
| Dominion Lands | 6,526 | 06 |
| Total | 9,483 | 56 |
| Selkirk— | | |
| Crown Timber | 1,278 | 40 |
| Dominion Lands | 318 | 48 |
| Total | 1,596 | 88 |
| Stewart— | | |
| Crown Timber | 444 | 00 |
| Dominion Lands | | |
| Total | 444 | 00 |
| Fortymile— | | |
| Crown Timber | 1,878 | 00 |
| Dominion Lands | 475 | 77 |
| Total | 2,353 | 77 |
| Grand total | 72,252 | 65 |

H. M. MARTIN,
Crown Timber and Land Agent.

REPORT OF THE COMPTROLLER.

COMPTROLLER'S OFFICE, DAWSON, Y.T., August 8, 1904.

Honourable F. T. CONGDON,
Commissioner of the Yukon Territory,
Dawson, Y.T.

SIR,—I have the honour to submit my annual report for the year ending June 30, 1904.

The expenditure under the letter-of-credit account, Department of the Interior, including surveys, which was made through my office, for the year was \$277,789.06.

A copy of the annual report of the local revenues of the Yukon Territory is attached hereto : the revenue for the year was \$779,376.20; the expenditure, \$739,146.02, showing a surplus of \$40,220.18.

The public buildings in the Yukon Territory, with the exception of the post office and government house, are under the management of the Yukon Council, and the cost of maintenance is included in the expenditure of the local government.

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The disbursements under the vote of the Department of Public Works for maintenance of the post office and government house were \$34,999.83. The cheques were countersigned and accounts and statements examined by me as heretofore.

The royalty collected for the year was as follows :—

| | |
|-----------------|--------------|
| Dawson..... | \$267,721 75 |
| Whitehorse..... | 1,703 32 |
| Fortymile | 174 77 |
| | <hr/> |
| | \$269,599 84 |

The sale of law stamps for the year was :—

| | |
|------------------------------|-------------|
| Yukon Territorial Court..... | \$10,226 25 |
| Mining Court..... | 1,849 25 |
| | <hr/> |
| | \$12,075 50 |

Returns were sent to the Department of Inland Revenue.

The expenditure for the Department of Indian Affairs was \$3,201.74; statements were forwarded with vouchers to the Superintendent General of Indian Affairs.

The expenditure on account of the Department of Public Works, river improvement vote, was \$8,548.48.

The expenditure on account of the Department of Justice for the year for salaries, witness and jury fees, &c., was \$31,630.20. Monthly statements with vouchers were forwarded to the department.

The returns from the Gold Commissioner's and Crown Timber and Land Agent's offices have been checked over and forwarded to the Department of the Interior, the drafts for the revenue received being mailed with a weekly statement.

Since June 9, 1904, a charge has been made for issuing free certificates to miners and others bringing American gold dust through this territory. The receipts from same to June 30 were \$27.

I have the honour to be, sir, your obedient servant,

J. T. LITHGOW,

Comptroller.

REPORT OF THE DIRECTOR OF SURVEYS.

SURVEY OFFICE, DAWSON, Y.T., July 1, 1904.

Hon. FRED. T. CONGDON,
Commissioner, Yukon Territory,
Dawson, Y.T.

SIR,—I have the honour to submit the annual report of the operations of this office for the fiscal year ending June 30, 1904, as follows:—

A lesser quantity of field work has been undertaken during the year than in the previous year, thus enabling the surveyors on the staff to complete full returns of several surveys which had been left over from previous years on account of the urgent necessity for their services in the field.

Considerable and valuable work was done last summer in the Duncan Creek district by Mr. A. J. McPherson, D.L.S., including the establishment of base lines on Christal, Keystone, Haggart and Dublin creeks and an exploratory traverse and triangulation connecting the McQuesten River with the head of Mayo Lake, thus

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supplying us with a general outline of that district upon which to base future surveys as required.

Mr. C. W. MacPherson, D.L.S., was engaged last summer on the survey of the road from Stewart Crossing to Yukon Crossing and other small surveys in the vicinity of that road. Road surveys such as this one are not only valuable as defining the limits of the road, but supply also an extremely useful link in connecting other surveys and can be made the basis of future surveys, thus filling to some extent the place of township outlines established in the North-west Territories.

Mr. James Gibbon, D.L.S., who had returned just prior to the commencement of the fiscal year from a survey on the Chandindu and Yukon rivers, was not engaged in any extensive field work last summer, remaining in the office and from there making several small surveys in the immediate vicinity. During the three months in the winter that I was absent from the Territory on leave, he acted as Director of Surveys.

In addition to the work undertaken by the surveyors on the staff, Mr. H. G. Dickson, D.L.S., completed under contract the survey of a reference traverse on the copper belt at Whitehorse and signals on the hills behind in connection with the same; also road surveys from Whitehorse to the copper claims.

The principal new field work undertaken by the department during the year includes 111 miles of road surveys, 98 miles of reference traverse and triangulation, and 24 miles of creek base line.

Plans of the following surveys have been filed in this office during the year and include the surveys made by the surveyors in private practice in the Territory: group lots, 65 (including 28 mineral claims, 5 coal properties and one right-of-way); placer claims, for advertisement under the regulations, 76; base lines, 15; roads, 10; subdivisions, 2; explorations, 2; reference traverse, 1.

In addition to the preparation and examination of returns of survey, the following office work has been performed:—

| | |
|--|-----|
| Compiled plans (placer 200 feet—1 inch) | 6 |
| Compiled plans (general 1,000 feet—1 inch) | 4 |
| Sketches made | 60 |
| Negatives made | 3 |
| Photographic prints | 60 |
| Plans mounted | 20 |
| Blue prints | 136 |

The photographic work referred to was done by Mr. A. d'Orsonnens, and consisted of copies of a plan prepared by the Territorial Engineer, and the success met with in this attempt indicates the valuable work that could be accomplished with a properly equipped photographic outfit and dark-room. Plans required in a reasonably large number and of a better character than blue prints could be produced here by photography in a very much shorter time and at a very little greater expense than by sending them out of the Territory to be lithographed.

I have the honour to be, sir, your obedient servant,

C. C. CHATAWAY,

Director of Surveys, Y.T.

PART VIII

SUPERINTENDENT OF MINES

THE UNIVERSITY OF CHICAGO

SUPERINTENDENT OF MINES.

REPORT OF THE SUPERINTENDENT OF MINES.

DEPARTMENT OF THE INTERIOR,
OTTAWA, October 17, 1904.

To the Honourable CLIFFORD SIFTON,
Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit herewith the annual report upon the operations of the Superintendent of Mines' office for the fiscal year ending June 30, 1904.

Dominion of Canada Assay Office.

AMOUNT OF BUSINESS DONE (SEE STATEMENT 'A' ATTACHED).

During the fiscal year ending June 30, 1904, 24,516·36 ounces of bullion, valued at \$385,152, representing 381 deposits, were received and assayed. These deposits were derived from the following sources:

| Source. | Deposits. | Weights. | Value. |
|-----------------------------|-----------|-----------|------------|
| | No. | Oz. | \$ cts. |
| Yukon..... | 70 | 3,391·97 | 53,764 60 |
| British Columbia..... | 289 | 19,310·11 | 302,041 02 |
| North-west Territories..... | 4 | 1,380·04 | 842 28 |
| Ontario..... | 15 | 47 35 | 21,978 83 |
| Alaska..... | 3 | 386·89 | 6,525 27 |
| | 381 | 24,516·36 | 385,152 00 |

From this table it is seen that 76·4 per cent of all deposits were obtained from British Columbia, and only a little over 18 per cent from the Yukon.

From the following table, which shows the business done by the Assay Office since its establishment,

| Fiscal Year. | Deposits. | Weights. | Value. |
|----------------|-----------|-----------|--------------|
| | No. | Oz. | \$ cts. |
| 1901-1902..... | 671 | 69,925·67 | 1,153,014 50 |
| 1902-1903..... | 509 | 36,295·69 | 568,888 19 |
| 1903-1904..... | 381 | 24,516·36 | 385,152 00 |

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it will be observed that the business done has steadily decreased. The causes operating to produce this decrease, which have been given in my report for the fiscal year 1902-03, remain unchanged.

THE GOVERNMENT'S INDEBTEDNESS TO THE CANADIAN BANK OF COMMERCE.

From the statement marked 'B' it will be seen that the Canadian Bank of Commerce received from the Dominion of Canada Assay Office during the fiscal year ended June 30, 1904, gold bars to the value of \$385,152 and realized from the sale of these bars and clippings \$386,798.96, showing a difference of \$1,646.96 in favour of the government. After deducting (see Statement 'B') extra assay charges paid by the bank, express charges on bars sent to San Francisco, and the commission due the bank for marketing the gold bars received from the Assay Office, the total amount of the government's indebtedness to the Canadian Bank of Commerce for the fiscal year ended June 30, 1904, was \$384.90.

The Seattle Assay Office does not receive bars under 500 fine, and all such bars had to be sold to the Selby Company, in San Francisco.

RECEIPTS AND EXPENDITURES.

From the statement (marked 'D') showing money received and expended by the Dominion of Canada Assay Office, and from the detailed statement (marked 'E') of expenses of the Assay Office during the fiscal year ended June 30, 1904, it will be seen that the expenditures amounted to \$11,681.27, and the earnings, including extra assay charges, special assay charges and value of sweeps and recovery of grains (see Statement 'F') to \$1,888.16. The unexpended balance of the appropriation of \$18,000 amounts to \$7,417.25. The percentage of net expenses to the total deposits is 2.5425 per cent.

CHANGES IN THE STAFF.

Mr. Charles S. Hurter resigned his position on August 30, 1903, to accept the position of Chief Assayer of the Tyee smelter. Mr. J. Walter Wells, B. Sc., formerly Assayer for the province of Ontario, was appointed, October 31, 1903, to succeed Chas. S. Hurter as Chief Assayer. Mr. Wells was obliged, on account of ill-health, to resign his position on April 30, 1904. The business of the office not being pressing, it was deemed advisable in the interests of economy to dispense with the services of one assayer, and Mr. J. B. Farquhar, whose work as Assistant Assayer had been very satisfactory, was appointed Chief Assayer on July 1, 1904.

COLLECTION OF GOLD DUST AND NUGGETS FROM THE YUKON, BRITISH COLUMBIA AND THE NORTH-WEST TERRITORIES.

The collection of gold dust and nuggets ordered to be made, in accordance with your instructions of February 28, 1903, from the Yukon, British Columbia and the North-west Territories for exhibition at the World's Fair at St. Louis was assembled for us by the Canadian Bank of Commerce and handed over on January 20 last by the manager of the bank at Vancouver to the Dominion of Canada Assay Office for assay.

The collection consists of 75 specimens of gold dust from the Yukon Territory and 13 specimens of gold dust and five nuggets from British Columbia. The bank did not succeed in obtaining nuggets from the Yukon Territory, but as regards the occurrence of gold in the placers of the Yukon Territory the collection represents almost every creek producing gold.

Table 'H,' appended to this report contains a list of the localities, bullion-fineness and value per ounce after melt of the specimens.

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The collection, although not specially a show collection, is of great educational value, and should, therefore, after the exhibition, find a conspicuous place on the shelves of the museum. It will be impossible to replace it in a few years, since the placers from which the specimens were obtained will then be worked out.

The collection was sent by Mr. McCaffry to the accountant of the Department of the Interior on February 16 last, and handed over by him in the presence of Dr. Barlow to Mr. James Brodie, secretary of the exhibition branch, on April 12 last.

The following directions were given and carried out regarding the mounting of the specimens :—

The separate specimens are to be mounted in dull black, shallow, metallic trays (2 inches x 1½ inches) to set off by contrast the brilliant colour of the gold, the trays to be closed on top by glass plates fitting tightly into grooves. The tray to be cemented on a heavy Bristol board, 3 3-16th x 3 11-16th inches, containing the following information :—

- 1st. Number of specimen ;
- 2nd. Location ;
- 3rd. Bullion fineness ;
- 4th. Value per ounce after melting.

The number on the card to be stamped also on the tray in order to identify the specimen should the tray become separated from the card by accident.*

The expense of the collection and the mounting of it was borne by the Department of Agriculture.

ELECTRIC SMELTING.

During the year 1903-4 (Trade and Navigation Report) Canada imported :

| | |
|--|--------------|
| Pig iron, steel ingots, ferros, scrap, &c. | \$ 1,727,867 |
| Rails, bars and other manufactured iron and steel. . . | 12,172,082 |
| Sheet iron and plates. | 5,223,250 |
| Wires. | 2,216,413 |
| Hardware. | 4,593,226 |
| Agricultural and miscellaneous machinery. | 17,178,761 |

| | |
|--|--------------------|
| Total. | \$43,111,599 |
| To ascertain sale value add 25 per cent. | 10,777,899 |
| | <hr/> \$53,889,498 |

These figures show to what extent we are at present dependent upon outside sources for iron in the crude and manufactured state. The influx of settlers requiring tools and machinery, the building of new railroads, the displacement of wood by steel in modern architecture, the multiplication of established and the inauguration of new industries will in the near future rapidly increase above the present demand the annual quantity of iron and steel required for home consumption. To stimulate and encourage the production of iron and steel from our abundant sources of raw material the government has offered generous bounties on pig and rails produced in Canada and placed an import duty on articles manufactured from iron and steel. Regarding the distribution of the raw material for the production of pig, the conditions of the country are, however, such that the necessary coking coal for blast furnace work is found only at the extreme east and west, while the large provinces of Ontario and Quebec, possessing numerous and extensive deposits of iron ore are without coal deposits. If these deposits are to be utilized in the production of pig by the present methods of smelting, either coke must be brought to blast furnaces erected in the

* Mr. R. L. Broadbent, by letter, October 13, 1904, informs me that this collection has received the gold medal at the Louisiana Purchase Exposition at St. Louis, U.S.A.

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vicinity of the deposits of iron ore in Ontario and Quebec, or the ore of these provinces must be transported to blast furnaces erected near an abundant coal supply. In either case the transportation costs render such a course uneconomic. Unless some other method of smelting, in which some other source of energy than that resulting from the combustion of carbon in blast furnaces can be proven to be practical and economic, the extensive ore deposits of these provinces will remain to a large extent undeveloped, and regions which might otherwise be made to teem with an industrial population will remain waste areas for many years to come.

The necessity of profitably employing the electric plants erected in different parts on the continent, especially in France, for the production of carbide, which had to be closed down as unprofitable on account of over-production, furnished the incentive to invent methods for applying electric energy, first, to the production of the different ferros, and subsequently to the production of pig and steel.

In the solution of the problem of applying electric energy to the extraction of metals from their ores, Captain Stassano, in Italy, and Heroult and Keller, in France, have rendered conspicuous service. The description of the experiments made by them and the results obtained attracted wide attention and were eagerly discussed in the scientific press, for it was at once seen that if by the electric process pig could be economically produced, such countries as Brazil, Chili, New Zealand and our own two provinces of Ontario and Quebec, all rich in iron ore deposits, the necessary fluxes, and possessing extensive water powers, but lacking coal, would be able to render themselves independent of outside sources by employing the electro-thermic process for the manufacture of their iron and steel.

It was with a view of ascertaining the feasibility of utilizing the extensive water powers of Canada in the production of electric energy to be applied to the smelting of iron ores and the making of steel that you appointed two different commissions:

1st. A commission consisting of the Government Electrician, Mr. Higman; the Metallurgist, Mr. Locke; and the writer, to investigate the Ruthenburg Process of electric smelting of magnetite at Lockport, N.Y., on July 2, 1903. The process, as exhibited to the commission, was a pronounced failure, either as regards reduction of the ore or agglomeration of the iron sands with which the experiments had been made.

2nd. A commission, consisting of Mr. C. E. Brown, electrician; F. W. Harbord, metallurgist; E. Nystrom, M.E., draughtsman, and Thomas Côté, private secretary, and the writer, who were to proceed to Sweden, France and Italy to investigate the different electro-thermic processes now in operation in these countries for the smelting of iron ores and the production of steel.

The members of the commission, with the exception of Mr. Harbord, who was appointed in England, left for Europe on January 21 on their mission, and returned on April 16.

The results of the investigation were very gratifying and are given in detail, together with description of the work done by the first commission, which investigated the Ruthenburg Process, in a report issued as a separate publication.

PEAT.

During the year 1903-04 (Trade and Navigation Report) Canada drew upon outside sources for coal and coke to the amount of \$20,878,387. To decrease this coal bill by substituting for at least part of the coal and coke we now import, peat fuel from our extensive peat-bogs of Ontario and Quebec is worthy of every effort that can be made in this direction.

Within the last ten years, on account of the remarkable increase of manufactures on the continent of Europe and the consequent rise of the price of coal, attention has been attracted anew to the utilization of peat in substitution for coal, and the governments of Holland, Germany, Sweden and Russia have encouraged the peat industry

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in their respective countries by the erection of experimental plants, by appointment of special technical officers who are required to make a study of all new methods of manufacturing peat fuel and furnish information and advice as to the best methods of working the bogs and manufacturing the raw peat into a desirable fuel. In addition to this, the government of Sweden has spent considerable sums in aiding owners of peat-bogs to erect plants. As a consequence of this activity on the part of these governments in stimulating the peat industry, a large amount of experience has been gathered regarding the best methods of working peat-bogs and converting the raw peat into a valuable, clean, compact fuel.

This experience is at our disposal and will enable us, in the development of our own peat industry, to avoid methods which have proven failures, and adopting those which have been shown to be successful and economic.

Considerable money has been spent in our own country in experimenting with raw peat to convert it into a marketable fuel of sufficient density to permit of transportation without crumbling and consequent waste. It is gratifying to be able to state that an acceptable fuel from peat is now being manufactured on a commercial scale, which, judging from the cost of manufacture, could be sold at a profit for \$3.50 per ton.

The tonnage of peat fuel placed upon the Canadian market is yet quite small, but with some encouragement from the government in the way of a bounty per ton of manufactured peat, other plants would be established, and the new fuel having won the confidence of consumers, a new industry will have been inaugurated, which will not alone be a direct public benefit on account of the increased employment of labour and distribution of money at home, but will render Canada, at least to some extent, independent of outside sources for fuel and prevent industrial depression and suffering in case labour troubles in the coal regions, from whence our imported coal supply has been derived, should produce a coal famine and consequent increase in the price of coal.

In this connection a statement is here given of the different ways in which the governments of Holland, Germany, Sweden and Russia have sought to encourage the peat industry in their respective countries.

Holland.—The following statement made by the Minister of War shows to what extent the government of Holland encourages the peat industry:—

‘Encouraged by the good results obtained at Amsterdam in the production of compressed peat, it is my intention to make the necessary arrangements in case the fortress of Amsterdam should be surrounded in times of war, to provide it with the necessary amount of fuel in the form of compressed peat. To accomplish this five additional peat compressing machines at 1,700 florins per machine will be constructed, and on the same lines as the one already installed by the government. It is furthermore my intention to make contracts with a certain owner of peat bogs to place six of his peat machines at the disposition of the government when required. With these six machines it will be possible during May-September to manufacture five millions of peat bricks (= 2,500 tons). Furthermore, in times of peace fifteen millions of peat bricks (= 7,500 tons), corresponding in calorific value to 4,000 tons of coal will be collected.

‘To accomplish this the gentleman above mentioned will be instructed to manufacture during the first three years 2,500 tons compressed peat annually, employing for this purpose the machines belonging to the government. After the first three years the production will be decreased to 1,000 tons annually. Commencing with the fourth year 1,000 tons of compressed peat will be used in the government offices and buildings to replace the coal now used.

‘The peat thus contracted for shall be delivered at a price of \$4.50 per ton at Hemburg (at the Noordzee canal close to Amsterdam). For the storage of this peat three storehouses will be erected at a cost of about \$10,000.’

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This encouragement is given by the government to the peat industry, in face of the fact that coal imported is cheaper than the peat produced in the country. The production of peat in Holland is at least one million of tons annually.

Germany.—In certain districts special rates of transportation are granted by the government for lignite and peat, and an annual subsidy is granted to the peat bog culture societies (societies formed for reclaiming peat bogs for farming purposes).

Sweden.—The government has erected in Yömköping a trial plant under the superintendence of a special engineer, with assistants, for the purpose of making investigations relating to the manufacture of peat for the government, and also for private parties. The personnel of this plant also furnish plans for the working of peat bogs, and are required to give information relating to the peat industry, and to investigate all new processes and machinery invented for the economic manufacture of fuel from peat.

A school has been established for the education of persons to be employed by private parties in the peat industry.

To assist the peat industry, the Swedish government allotted the sum of 100,000 kronors in 1901 and 1,500,000 kronors in 1902. The government allows low freight rates for transportation of peat, and uses a certain amount of peat as fuel and for steam raising. To assist in the erection of a trial plant, according to Mr. A. Larson's patent for the making of peat coke, the government furnished 20,000 kronors. The different peat bog culture societies of Sweden receive from the government an annual subsidy.

Russia.—The following regulations have been adopted by the Russian government to encourage the peat industry of the country:—

1. Private persons to be allowed to work peat bogs belonging to the government.
2. Assistance to be given for investigation of peat bogs.
3. Instructions to be given to farmers in the simplest methods for peat manufacture and the use of peat for fuel.
4. The building of roads, including railroads, for transportation of peat to be encouraged by granting assistance.
5. Freight on peat to be lowered.
6. A special rate of interest to be allowed on money borrowed for the working of peat-bogs.
7. Farmers to be allowed to work peat bogs at a rental of from $\frac{1}{2}$ to 1 cent per square meter.

In compliance with an imperial ukas of January 7, 1900, the building of a peat-coke plant at Redkino, in the province of Twer (according to the Ziegler patent) was begun, with the intention of erecting several other plants of the same pattern, if the first proved successful. The plant at Redkino, according to tests, proved to be very successful, furnishing double the amount of half-coke promised.

This plant, including 1,300 hektars peat-bog and 20 Anrep's machines with accessories, railroad to the bog, &c., cost the Russian government \$375,000.

As a result of the successful operation of the first Ziegler plant put up at Redkino, three additional peat-coke plants are to be erected by the government.

The Russian government, anxious from a military point of view, to be independent of imported fuel, loans to every private person or company building peat plants in Russia 40 per cent of the cost of the plant. This loan may be paid in peat or peat products.

Further, every manufacturer of peat has the right to have his peat converted into coke in the government's plants, paying the government for this service \$1.50 per ton of coke produced. The government, moreover, buys the resulting coke from the owner, if he so desires, at a price based on the price of Newcastle coal at \$5 per ton.

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According to this arrangement, the value of the coke produced is in strict accordance with the thermic value of the peat-coke.

Russia is the largest peat-producer in the world. The amount of peat produced in 1902 reached 4,000,000 tons. The annual increase in the production of peat is from 150,000 to 200,000 tons. Many private peat plants exist in connection with cotton mills, producing 200,000 tons annually.

The following extract from an article in the *Nowoje Wremja* is evidence of the efforts made by the Russian government to render itself independent of outside sources for fuel:

'The coking of peat is one of the most important and interesting inventions and has a special importance for Russia. We import from England 20,000,000 rubles' worth of coke and coal. . . . The Minister of Railroads and Transportation commissioned J. Karischew to erect a Ziegler plant at Redkino for coking peat. The result was excellent. From a rather poor quality of peat excellent coke and half-coke was obtained by this process, and the retorts turned out nearly double the calculated production.

'The minister, Furst Chilkow, and a large number of engineers and other persons from all parts of Russia interested in the production of coke from peat, have inspected the plant.

'The production of peat-coke is of great importance to the country; it saves the forests of the country and furnishes means for developing the metallurgical industries in the Ural, and in case of war renders Russia independent of England, which up to the present has furnished the coal for our navy.'

EXHIBITION OF THE PEAT INDUSTRY AT BERLIN, GERMANY.

I was fortunate enough, on my way from Stockholm to Paris, in February last, to be able to attend the Exhibition of the Peat Industry (*Ausstellung für Moorkultur und Torfindustrie*) at Berlin, Germany. The different countries interested in peat, as Sweden, Denmark, Finland, Russia, Holland and Germany, were represented in this very interesting and instructive exhibition. I was thus enabled to carry out your instructions of January 21 last, to take the opportunity to look into peat while abroad on the work of the Commission on Electric Smelting, and to gather an amount of information regarding processes and machinery employed for the manufacture of peat in different countries, which could not otherwise have been gathered by many months of travel.

The following products of peat were exhibited:—

1. Raw peat, air-dried or otherwise dried and slightly compressed.
2. Briquettes—
 - (a.) of raw peat;
 - (b.) of carbonized peat.
3. Peat-coke and by-products (used for metallurgical purposes in blast furnaces in Oldenburg, Germany, and the Ural, Russia. Advantageously also replacing charcoal in the forge).
4. Fibrous peat—
 - (a.) manufactured into bedding for stables;
 - (b.) manufactured into wool for ropes and sacking, &c.
 - (c.) manufactured into building paper, card-board and flooring.
5. Peat-moss (specially useful for packing fruit).

Machinery Exhibited for the Manufacture of Peat for Fuel and Other Purposes

Peat machines (horse-power driven) for tearing, mixing and shaping peat.

Peat machines (steam-power driven) for tearing, mixing and shaping peat.

Peat elevators for use in drained bogs.

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Peat-cutting machines for use in wet bogs.

Transportation material, such as rails, switches, wagons, &c.

Machines for the manufacture of peat bedding and peat wool—

(a.) Machines for tearing peat (Reisswolfs).

(b.) Peat wool mills.

(c.) Sieves.

(d.) Baling presses.

Machines for wiring bales.

Locomotives.

Pumps.

No plants were exhibited for the making of peat gas, which is used in Sweden as fuel for Siemens furnaces, for re-heating furnaces and for power purposes in gas engines.

The observations made and information obtained regarding the manufacture of peat while in Europe will form a special report on the subject.

In this connection, I would draw attention to an excellent publication: 'Peat Fuel, its manufacture and use,' Bulletin No. 5, issued by the Bureau of Mines, Ontario, which contains much valuable information.

WORK BY MR. E. NYSTRÖM, M.E.

Magnetic Survey of Iron Ore Deposits.

The field work assigned to Mr Nyström during the summer of 1903 consisted in making a magnetic survey of part of the iron formation at the north arm of Lake Temagami, comprising a detailed survey of mining location 339 and a preliminary survey of the formation from Turtle lake to Tetepaga river. The remainder of his time of the year 1903 was taken up with the mapping of the results of his survey.

Commission to Investigate Electric Smelting.

Mr. Nyström accompanied as draughtsman the commission appointed for the investigation of electric smelting in Europe, leaving Ottawa January 21 and returning April 16, 1904.

Since then he has been engaged in making the necessary drawings for the commission's report and assisting in carrying it through the press.

THE YUKON.

QUARTZ.

Quartz Mill.—The agreement made between the government and Mr. Matheson, the contractor, to erect a modern two-stamp mill, together with a concentrating plant, has now been carried out, and, according to the report of Mr. Beaudette, has been certified by him as satisfactory.

Charges.—The amount to be charged customers for trial runs has been fixed by agreement between the hon. the Commissioner and the contractor, Mr. Matheson, at cost price plus 10 per cent to cover repairs.

Very little milling has been done since the erection of the mill, on account of the great distance of the mill from the localities of the ore deposits and the consequent heavy freight charges.

Development.—Mr. Beaudette, Government Mining Engineer, reports (see appended report marked 'I') that very little development in connection with quartz

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deposits was done in the territory during the past fiscal year. The only notable exception is the sinking of a 150-foot shaft and cross-cutting on the Violet Group. The ore carries on an average \$9 of gold per ton, and the company have made arrangements to erect a stamp mill having a capacity of 100 tons per day.

ASSAY OFFICES, Y.T.

In addition to the assay office in Dawson, Y.T., in connection with the quartz mill, a government assay office has been established at White Horse, which has been in operation since September, 1903. Statements of assays made in these two assay offices, with results, are appended (see statements 'K' and 'L').

WATER MEASUREMENTS OF THE STREAMS IN THE YUKON TERRITORY.

The following is a list of water measurements made of the streams in the Yukon Territory by Mr. A. J. Beaudette on the dates given :

| Date. | Name of the Stream. | State of water. | Amount in Miners' inches. |
|-------------------|------------------------|--------------------|---------------------------|
| 1902. | | | |
| July 20..... | 12 Mile river..... | High..... | 11,220 |
| October..... | Rock creek..... | Mean..... | 4,682 |
| 1903. | | | |
| May 9..... | Klondike river..... | Flood..... | 305,643 |
| August 15..... | "..... | At its lowest..... | 54,280 |
| May 17..... | *Bonanza creek..... | Flood..... | 17,641 |
| August 15..... | "..... | Very low..... | 68 |
| June 18..... | Gold Run creek..... | Below mean..... | 120 |
| " 20..... | Mayo river..... | High..... | 124,400 |
| " 20..... | Duncan creek..... | "..... | 18,250 |
| " 21..... | Jennett creek..... | "..... | 8,105 |
| September 28..... | †Miller creek..... | Low..... | 75 |
| " 28..... | †Glacier creek..... | "..... | 63 |
| " 28..... | †Sixty Mile river..... | "..... | 11,000 |
| " 29..... | Bed Rock creek..... | "..... | 125 |
| 1904. | | | |
| June 20..... | Hunker creek..... | Low..... | 156 |
| " 24..... | Bear creek..... | "..... | 65 |
| " 24..... | Dominion creek..... | Mean..... | 400 |
| " 16..... | Bonanza creek..... | Above mean..... | 1,256 |

* The very large amount of water in Bonanza creek was due to the Gusher water which froze during the winter and the ice accumulated on the creek. In the spring, during the thaw, all that ice melted at once, hence the large volume of water.

† The Sixty Mile river, Glacier and Miller creeks were measured rather late in the season. The amount there given is low as there was anchor ice already in the streams.

Mr. Beaudette further reports that he has calculated the amount of water flowing in the Stewart river, and found it to be 1,010,166 miners' inches, or 1,515,250 cubic feet per minute.

This may be taken as the quantity of water flowing over Fraser falls, as there are no tributaries of any importance flowing into Stewart river between the falls and the point at which the readings were taken.

The readings were taken on June 25, 1903, opposite Gordon's Landing.

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ELECTROLYTIC METHOD FOR PRODUCING BICALCIC PHOSPHATE FOR USE AS A
FERTILIZER FROM UNSERVICEABLE RAW PHOSPHATE.

A brief account of the very interesting process of the production of a fertilizer by the electrolytic method patented by Professor Wilhelm Palmaer, director of the Electrochemical Laboratory, Stockholm, Sweden, is given in the appendix.

REQUESTS FOR INFORMATION.

As heretofore, numerous requests for information relating to mining matters, the occurrence of economic minerals, the mining laws of Canada, and requests for annual reports on the mining industries of Canada, of the Bureau of Mines, and on the mines of Canada have been received during the year.

I have the honour to be, sir,

Your obedient servant,

EUGENE HAANEL,

Superintendent of Mines.

A.—STATEMENT of Bullion deposited at Dominion of Canada Assay Office, Vancouver,
B.C., from July 1, 1903, to June 30, 1904.

| Territory. | Deposits. | WEIGHTS. | | Value. |
|-----------------------------|-----------|--------------|-------------|------------|
| | | Before Melt. | After Melt. | |
| | No. | Oz. | Oz. | \$ cts. |
| Yukon..... | 70 | 3,391 97 | 3,305 59 | 53,764 60 |
| British Columbia .. | 289 | 19,310 11 | 18,795 23 | 302,041 02 |
| North-west Territories..... | 4 | 47 35 | 41 48 | 842 28 |
| Ontario..... | 15 | 1,380 04 | 1,372 99 | 21,978 83 |
| Alaska..... | 3 | 386 89 | 353 78 | 6,525 27 |
| Total..... | 381 | 24,516 36 | 23,869 07 | 385,152 00 |

| | Oz. |
|----------------------------------|-----------|
| Weight before melt..... | 24,516 36 |
| Weight after melt..... | 23,869 07 |
| Loss by melting..... | 647 29 |
| Loss percentage by melting | 2.6402 |

B.—STATEMENT of difference in value of assays between Vancouver and Seattle from
July 1, 1903, to June 30, 1904.

| | |
|---|--------------|
| Value Seattle assay bars No. 2—382..... | \$386,191 90 |
| Value Vancouver assay bars No. 2—382..... | 385,152 00 |
| Difference..... | \$1,039 90 |
| Value of clippings..... | 607 06 |
| Amount due by bank..... | \$1,646 96 |

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| | |
|---|-------------------|
| Extra assay charges paid by bank. | \$1,321 61 |
| Express on bars from Seattle to San Francisco. | 55 50 |
| Commission due bank on \$385,152 at 17 cents per \$100. | 654 75 |
| Total amount due bank. | <u>\$2,031 86</u> |
| Total amount due bank. | \$2,031 86 |
| Total amount due by bank. | <u>1,646 96</u> |
| Amount paid bank. | \$384 90 |

C.—AMOUNT of difference in value of assays between Vancouver and Seattle from July 1, 1903, to June 30, 1904, inclusive.

| Melt No. | Value of Vancouver Assay. | Value of Seattle Assay. | Value of Clippings pur- chased by Bank. | Total value Assays received by Bank. |
|----------------------------------|---------------------------------|-------------------------------|--|--|
| From—To. | | | | |
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 2—30 | 32,041 35 | 32,142 07 | 50 79 | 32,192 86 |
| 31—68 | 89,679 55 | 89,995 35 | 69 13 | 90,064 48 |
| 69—103 | 39,029 48 | 39,156 20 | 61 81 | 39,218 01 |
| 104—176 | 71,896 19 | 71,986 19 | 132 28 | 72,118 47 |
| 177—219 | 46,539 82 | 46,642 95 | 74 43 | 46,717 38 |
| 220—242 | 12,720 44 | 12,746 64 | 36 91 | 12,783 55 |
| 243—263 | 15,032 56 | 15,089 36 | 26 80 | 15,116 16 |
| 264—272 | 3,475 46 | 3,494 11 | 9 90 | 3,504 01 |
| 273—289 | 11,947 39 | 11,999 77 | 20 29 | 12,020 06 |
| 290—320 | 16,234 03 | 16,277 36 | 39 42 | 16,316 78 |
| 321—341 | 7,137 33 | 7,159 33 | 26 08 | 7,185 41 |
| 342—382 | 39,418 40 | 39,502 57 | 59 22 | 39,561 79 |
| | 385,152 00 | 386,191 90 | 607 06 | 386,798 96 |
| Add extra assay charges. | 1,321 61 | ..... | ..... | ..... |
| | <u>386,473 61</u> | <u>386,191 90</u> | <u>607 06</u> | <u>386,798 96</u> |

Total value assays received by bank. \$386,798 96

Total value Vancouver assays. 386,473 61

Balance in favour of Vancouver assay office. \$ 325 35

D.—STATEMENT showing money received and expended by Dominion of Canada Assay Office, Vancouver, B.C., to June 30, 1904.

| | |
|---|--------------------|
| To amount of appropriation. | \$18,000 00 |
| Value of sweepings and recovery of grains (1902-03). | 1,091 02 |
| To special assays. | 7 50 |
| | <u>\$19,098 52</u> |
| By amount of expenditure to June 30, 1904, per statement. | 11,681 27 |
| Balance. | <u>\$ 7,417 25</u> |

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E.—STATEMENT of Expenditure made by Dominion of Canada Assay Office, Vancouver,
B.C., to June 30, 1904.

| | |
|----------------------------------|-------------|
| Rent..... | \$ 1,200 00 |
| Power and light..... | 209 40 |
| Gas and fixtures..... | 406 68 |
| Chemicals..... | 12 45 |
| Repairs and alterations..... | 11 45 |
| Water taxes..... | 15 48 |
| Postage..... | 10 00 |
| Stationery and printing..... | 47 69 |
| Assayers' materials..... | 59 57 |
| Boxes..... | 3 75 |
| Melters' supplies..... | 15 35 |
| Freight and express..... | 393 27 |
| Telegrams..... | 39 06 |
| Telephone..... | 66 00 |
| Office supplies..... | 17 55 |
| Weights..... | 20 00 |
| Hardware..... | 8 00 |
| Premium on bond..... | 80 00 |
| Commission on gold, 1902-03..... | 104 67 |
| “ “ 1903-04..... | 384 90 |
| Gold guarantee fund..... | 1,000 00 |
| Salaries— | |
| Thos. McCaffry..... | 2,500 00 |
| C. S. Hurter..... | 324 99 |
| G. Middleton..... | 1,350 00 |
| J. B. Farquhar..... | 1,200 00 |
| D. Robinson..... | 900 00 |
| Miss Tierney..... | 600 00 |
| J. W. Wells..... | 701 61 |
| Total..... | \$11,681 87 |

F.—STATEMENT showing the amount of deposits, earnings and expenditure, with the
percentage of net expenses to deposits for fiscal year 1903-1904.

| Items. | Amount. |
|--|------------|
| | \$ cts. |
| Deposits, gold..... | 385,152 00 |
| Earnings— | |
| Extra assay charges, placed to credit of Receiver General..... | \$1,321 61 |
| Special assay charges..... | 7 50 |
| Value of sweeps and recovery of grains..... | 559 05 |
| Expenditures..... | 1,888 16 |
| Percentage of net expenses to deposits..... | 11,681 27 |
| | 2 5425 |

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G.—STATEMENT of extra assay charges received by Dominion of Canada Assay Office, Vancouver, from July 1, 1903, to June 30, 1904.

| From. | To. | BAR NO. | | Amount. |
|------------------|-------------------|---------|-----|----------|
| | | From. | To. | |
| July 1..... | July 31..... | 2 | 30 | 121 61 |
| August 1..... | August 31..... | 31 | 68 | 292 09 |
| September 1..... | September 30..... | 69 | 103 | 131 19 |
| October 1..... | October 31..... | 104 | 176 | 187 32 |
| November 1..... | November 30..... | 177 | 219 | 154 14 |
| December 1..... | December 31..... | 220 | 242 | 57 83 |
| January 1..... | January 31..... | 243 | 263 | 62 08 |
| February 1..... | February 29..... | 264 | 272 | 19 38 |
| March 1..... | March 31..... | 273 | 289 | 52 45 |
| April 1..... | April 30..... | 290 | 320 | 75 70 |
| May 1..... | May 31..... | 321 | 341 | 51 75 |
| June 1..... | June 30..... | 342 | 382 | 116 23 |
| Total..... | | | | 1,321 61 |

H.—ST. LOUIS Exposition Gold Exhibit.

| No. | | BULLION FINENESS. | | Base metal. | Value per oz. after melting. |
|-----|---|-------------------|---------|-------------|------------------------------|
| | | Gold. | Silver. | | |
| | <i>Yukon Territory.</i> | | | | \$ cts. |
| 1 | Duncan 145 above Belliveau Discovery..... | 823 | 172 | 5 | 17 10 |
| 2 | Duncan 6 below Discovery..... | 798·5 | 195 | 6 | 16 60 |
| 3 | Caribou..... | 850·5 | 144 | 5 | 17 66 |
| 4 | Indian River..... | 840 | 156 | 4 | 17 44 |
| 5 | Henderson above Discovery..... | 731·5 | 261 | 7 | 15 26 |
| 6 | Klondike Hillside Left Limit..... | 841·5 | 154 | 4 | 17 47 |
| 7 | Klondike Hillside Right Limit..... | 807 | 190 | 3 | 16 78 |
| 8 | Bear No. 1 Pup..... | 707·5 | 281 | 11 | 14 77 |
| 9 | Bear 14 below Discovery..... | 742 | 250 | 8 | 15 46 |
| 10 | Bear 13 above Discovery..... | 671 | 318 | 11 | 14 04 |
| 11 | Miller 6 below Discovery..... | 843·5 | 151 | 5 | 17 51 |
| 12 | Eureka 15 above Right Fork..... | 631 | 357 | 11 | 13 23 |
| 13 | Bonanza 40 above Discovery..... | 831 | 162 | 6 | 17 26 |
| 14 | Bonanza 99 below Discovery..... | 806 | 186 | 8 | 16 76 |
| 15 | Last Chance 6 from mouth..... | 735 | 255 | 9 | 15 33 |
| 16 | Last Chance Right Fork..... | 673 | 318 | 9 | 14 08 |
| 17 | Hunker 80 Pup..... | 726 | 266 | 8 | 15 14 |
| 18 | Hunker 48 below Discovery..... | 798 | 195 | 7 | 16 59 |
| 19 | Hunker 30 above Discovery..... | 808 | 186 | 5 | 16 80 |
| 20 | Hunker Left Limit opposite 60 below..... | 822·5 | 175 | 2 | 17 09 |
| 21 | Canyon No. 14..... | 710·5 | 283 | 6 | 14 83 |
| 22 | Gold Run No. 8..... | 842 | 152 | 6 | 17 48 |
| 23 | Gold Bottom No. 27 from mouth..... | 798·5 | 194 | 7 | 16 60 |
| 24 | All Gold 102 below Discovery..... | 855·5 | 137 | 7 | 17 75 |
| 25 | Arizona Discovery..... | 910·5 | 87 | 2 | 18 86 |
| 26 | Dominion 253 below Lower Discovery..... | 858 | 136 | 6 | 17 80 |
| 27 | Dominion 2B below Lower Discovery..... | 815 | 180 | 5 | 16 94 |
| 28 | Dominion 77B below Lower Discovery..... | 834 | 162 | 4 | 17 33 |
| 29 | Dominion 23 above Upper Discovery..... | 794 | 201 | 5 | 16 52 |
| 30 | Glacier 6 above Discovery..... | 850 | 145 | 4 | 17 65 |
| 31 | Lindow No. 12..... | 671 | 321 | 8 | 14 04 |
| 32 | Little Blanche..... | 716·5 | 275 | 8 | 14 96 |
| 33 | Quartz 10 below Discovery..... | 746·5 | 248 | 5 | 15 56 |
| 34 | Trail Creek opposite No. 3 Right Limit..... | 818 | 177 | 5 | 16 99 |
| 35 | Eldorado No. 19..... | 771 | 223 | 6 | 16 05 |
| 36 | Calder..... | 751 | 242 | 7 | 15 65 |
| 37 | Sulphur 10 above Discovery..... | 779·5 | 215 | 5 | 16 23 |

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H.—ST. LOUIS Exposition Gold Exhibit—*Concluded.*

| No. | | BULLION FINENESS. | | Base Metal. | Value per oz. after melting. |
|-----|--|-------------------|---------|-------------|------------------------------|
| | | Gold. | Silver. | | |
| | <i>Yukon Territory.</i> | | | | \$ cts. |
| 38 | Sulphur 31 below Discovery..... | 799·5 | 196 | 4 | 16 62 |
| 39 | Pelly River..... | 899 | 95 | 5 | 18 63 |
| 40 | Boyle Concession..... | 730 | 260 | 10 | 15 23 |
| 41 | Oro Fino Hill..... | 739·5 | 256 | 4 | 15 42 |
| 42 | Treasure Hill..... | 696 | 296 | 7 | 14 54 |
| 43 | French Hill No. 5..... | 675 | 315 | 9 | 14 12 |
| 44 | Adams Hill..... | 764·5 | 228 | 7 | 15 92 |
| 45 | American Hill..... | 808 | 186 | 6 | 16 80 |
| 46 | Chechaco Hill..... | 798 | 196 | 6 | 16 59 |
| 47 | Gold Hill..... | 799 | 195 | 6 | 16 61 |
| 48 | Magnet Hill..... | 761·5 | 231 | 7 | 15 86 |
| 49 | King Solomon Hill..... | 786·5 | 208 | 5 | 16 36 |
| 50 | Monte Cristo Hill..... | 766·5 | 228 | 5 | 15 96 |
| 51 | Dago Hill..... | 702 | 292 | 6 | 14 67 |
| 52 | Bunker Hill..... | 810 | 185 | 5 | 16 84 |
| 53 | Boulder Hill..... | 795 | 200 | 5 | 16 54 |
| 54 | O'Neill Gulch No. 2..... | 821·5 | 174 | 4 | 17 07 |
| 55 | Gauvin Gulch Upper Bonanza..... | 687 | 305 | 8 | 14 37 |
| 56 | Lovett Gulch..... | 824 | 170 | 5 | 17 12 |
| 57 | Victoria Gulch 9 A..... | 823 | 171 | 5 | 17 10 |
| 58 | Mint Gulch, No. 8..... | 840 | 154 | 5 | 17 44 |
| 59 | French Gulch..... | 638·5 | 353 | 8 | 13 38 |
| 60 | Ora Grand Gulch..... | 792·5 | 200 | 7 | 16 49 |
| 61 | Green Gulch 3 Left Fork..... | 801·5 | 190 | 8 | 16 66 |
| 62 | Magnet Gulch..... | 705 | 286 | 9 | 14 72 |
| 63 | Gay Gulch No. 5..... | 752·5 | 240 | 7 | 15 68 |
| 64 | Henry Gulch..... | 677·5 | 310 | 12 | 14 17 |
| 65 | Nugget Gulch..... | 659 | 333 | 8 | 13 80 |
| 66 | Little Gem Gulch..... | 846·5 | 148 | 5 | 17 57 |
| 67 | Irish Gulch No. 4..... | 674·5 | 317 | 8 | 14 11 |
| 68 | Big Skookum Gulch..... | 621 | 371 | 7 | 13 03 |
| 69 | American Gulch..... | 810 | 184 | 5 | 16 84 |
| 70 | Fox Gulch..... | 787·5 | 207 | 5 | 16 38 |
| 71 | Poverty Bar..... | 791 | 202 | 6 | 16 46 |
| 72 | Deep Diggings No. 3 Eldorado, (70 ft.—90 ft.)..... | 733·5 | 258 | 8 | 15 30 |
| 73 | Little Skookum Bench..... | 773 | 219 | 7 | 16 09 |
| 74 | Independence Creek..... | 729·5 | 262 | 8 | 15 22 |
| 75 | Clear Creek..... | 846 | 147 | 6 | 17 56 |
| | <i>British Columbia.</i> | | | | |
| 76 | Quesnelle District—Nuggets..... | 793 | 201 | 5 | 16 50 |
| 77 | Williams Creek—Nuggets..... | 752 | 242 | 6 | 15 67 |
| 78 | Eldorado Creek—Nuggets..... | 673 | 320 | 7 | 14 08 |
| 79 | Similkameen River..... | 882 | 114 | 4 | 18 29 |
| 80 | McKee Creek—Atlin..... | 840·5 | 155 | 4 | 17 45 |
| 81 | Keithley Creek—Cariboo..... | 892·5 | 103 | 4 | 18 49 |
| 82 | Granite Creek..... | 897 | 97 | 5 | 18 59 |
| 83 | Stevens Creek—Cariboo..... | 805·5 | 188 | 6 | 16 75 |
| 84 | Cunningham Creek—Cariboo..... | 871 | 122 | 6 | 18 06 |
| 85 | Beaver Creek—East Kootenay..... | 911·5 | 83 | 5 | 18 88 |
| 86 | Lower Bridge River..... | 847·5 | 147 | 5 | 17 59 |
| 87 | Quesnelle District..... | 845 | 148 | 7 | 17 54 |
| 88 | Thompson River..... | 847 | 149 | 4 | 17 58 |
| 89 | Fraser River..... | 865·5 | 131 | 3 | 17 96 |
| 90 | Gold Run—Atlin..... | 821·5 | 175 | 3 | 17 07 |
| 91 | Atlin—Nuggets..... | 811 | 182 | 7 | 16 86 |
| 92 | Wild Horse Creek—Nuggets..... | 878·5 | 114 | 7 | 18 22 |
| 93 | Wild Horse Creek—Dust..... | 901·5 | 92 | 6 | 18 68 |

Certified correct,

J. WALTER WELLS, *Chief Assayer.*J. B. FARQUHAR, *Assistant Assayer.*

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I.—REPORT OF GOVERNMENT MINING ENGINEER.

DAWSON, September 21, 1904.

EUGENE HAANEL, Esq., Ph. D.,
Superintendent of Mines, Ottawa.

SIR,—I have the honour to submit my annual report on the operations of the stamp mill and the assay office, as follows :—

The agreement between the government and the contractor for the erection of an experimental two-stamp mill and an assay office has been complied with, and I gave a certificate to the effect on December 11 last. The concentrating plant consists of a Frew vanner of the most modern type and works admirably. There is also a small cyanide plant installed in the mill, which was not required, according to the contract, and which I hope will be of some use.

I regret to say that very little milling has been done during the past year, one reason being the long distance of the ore from the mill and the great expense in connection with the freight. It seems impossible at present to locate the mill at any other place of easier access to the public.

On the 11th of December last an agreement was made between the commissioner and the contractor to the effect that not more than the cost price of milling plus 10 per cent for repairs should be charged to the public. Since then I investigated the cost of milling a ton of ore and found that on an average the same cannot be milled for less than \$19, including repairs.

Most of the development in connection with the quartz deposits in the territory was done on the Violet Group. A shaft was sunk to a depth of 150 feet and then cross-cutted in search of the ore. The ore was found at a distance of about 19 feet from the shaft. Development was then proceeded with in the direction of the ore for a distance of 34 feet on each side of the shaft. The vein appears to be about four feet wide at that level, with an average assay of \$9 per ton. The company operating thereon thought advisable to order a mill. The mill has been ordered from the Merrill Company of Denver, Colorado, and has a capacity of 100 tons daily; it is at present being installed on the property. The company thinks that, although the ore is not a very rich one, to cope with the conditions of this country, the process they have adopted will prove to be a success.

There has been very little development in this direction in other parts of the territory, except at Whitehorse, with the copper deposits.

The amount of ore crushed at the mill during the year is as follows :—

FOR THE MONTH OF MARCH.

| | |
|--|-------------|
| Weight of rock. | 18,675 lbs. |
| Gold per ton on plates. | Traces. |
| Concentrates, per cent. | 0'50 |
| Value of the concentrates per ton. | \$1.65 |

FOR THE MONTH OF APRIL.

| | |
|--|---------------|
| Weight of rock. | 16,000 lbs. |
| Gold per ton on plates. | 5 dwt. 7 grs. |
| Concentrates, per cent. | 0'47 |
| Value of the concentrates per ton. | \$11.33 |

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THE ASSAY OFFICES AT DAWSON AND WHITEHORSE.

The assay office at Dawson has not yet been moved to accommodate the people in the city, and it does not appear that it is advisable to do so as long as it is not owned by the government. At present there is less work going on in the office than last year, and I would recommend the office to be left there until the time when the contract expires, which will be on September 19, 1905.

The office is well supplied with all apparatus and chemicals. Only a few changes are required to render the building suitable for the winter, and the contractor has been notified of these required changes.

The local government passed an order to the effect that all assays made at the office are to be paid out of the territorial funds. The sum of \$3 per assay was charged to the Territory upon being certified by the assayer and myself. The result of this free assaying was very annoying, and considered very objectionable and injurious. All kinds of rocks were brought into the assayer for assay, which, upon observation, were found to contain nothing of any value, and did not warrant assaying.

I thought it advisable to recommend to the commissioner that the only way to stop this was to impose a small charge upon each assay, and further to examine each sample as to whether it would warrant assaying or not, and if found not to contain anything valuable, the assay was not to be proceeded with. On October 31 last I advised the assayer to the following effect: "It has been decided that a charge of \$1.50 for each assay be made to the public, to begin from November 1 next." The \$1.50 was taken to be the actual cost to the contractor for making an assay, that is, material and money invested in the office. The result of this method has been very satisfactory, which may be seen by the returns I now submit to you.

Since this order took effect the assayer has collected \$151.50 in connection with these assays, which was handed over to the comptroller.

I here inclose a statement of the amount of work in the office during the year ending June 30, 1904. I might here add that the high assays here shown are not an average of the ore, as undoubtedly the best samples were taken for the purpose of assay.

I was instructed on May 28, 1903, to instal an assay office at Whitehorse. Upon investigation I found that I could obtain the necessary apparatus in Dawson and other supplies to complete the outfit. I was also advised that there was a competent assayer at Whitehorse to take the position. I had considerable trouble to find a suitable building for the purpose, but succeeded in obtaining suitable accommodation for the assay office in the month of September, from which time the office has been doing very good work, and appears to be satisfactory to everybody. This office is controlled by the local government under my charge.

I here give you a statement of the work done since the office has been opened.

I have the honour to be, sir,

Your obedient servant,

A. J. BEAUDETTE,

Government Mining Engineer.

SESSIONAL PAPER No. 25

K.—RETURNS of the Assay Office at Dawson for the year ending June 30, 1904.

| No. of Assay | Description. | Locality. | Metal. | Per ton | | Value per ton. |
|--------------|--------------------------------|-----------------------|---------|---------|---------|----------------|
| | | | | Gold. | Silver. | |
| | | | % | Oz. | Oz. | \$ cts. |
| 269 A | Quartzite..... | Sixty mile river..... | | | | |
| 269 | " | " | | | | |
| 269 B | Antimony silver..... | " | Sb 49 | Trace | 144 | 140 60 |
| 269 C | Quartz & little Sb..... | " | | " | 2 | 1 00 |
| 269 D | " | " | | " | 3.5 | 1 75 |
| 269 E | " | " | | " | 3 | 1 50 |
| 270 | Quartz..... | Dion Gulch..... | | | | |
| 270 A | " | " | | | | |
| 271 | " | Yukon river..... | | | | |
| 271 A | " | " | | 0.07 | | 1 44 |
| 271 B | " with iron pyrites..... | " | | 0.08 | | 1 65 |
| 271 C | " | " | | 0.05 | | 1 03 |
| 271 D | " | " | | | | |
| 272 | Quartz, iron-stained..... | Dominion creek..... | | | | |
| 272 A | " | " | | 0.07 | | 1 44 |
| 272 B | " | " | | | | |
| 273 | Quartz, iron pyrites..... | Bonanza creek..... | | | | |
| 274 | " | Bear creek..... | | 0.10 | | 2 06 |
| 275 | Quartz, iron-stained..... | Hunker creek..... | | 2.10 | 6.40 | 46 60 |
| 275 A | " | " | | 0.7 | Trace | 1 44 |
| 276 | Quartz..... | Eureka creek..... | | 0.6 | " | 1 24 |
| 277 | " | Klondike river..... | | | | |
| 278 | Quartzite..... | 12 Mile river..... | | | | |
| 279 | " | Forty mile river..... | | | | |
| 279 A | " | " | | | | |
| 280 | Disthen..... | Yukon river..... | | | | |
| 280 A | Porphyry..... | " | | | | |
| 280 B | " | " | | | | |
| 280 C | Quartzite..... | " | | | | |
| 281 | Country rock..... | " | | | | |
| 281 A | Quartz..... | " | | Trace | | |
| 281 B | Clay, mica schist..... | " | | | | |
| 282 | Quartzite..... | Russel creek..... | | " | | |
| 282 A | " | " | | 0.09 | Trace | 1 86 |
| 282 B | " | " | | Trace | | |
| 282 C | " | " | | " | | |
| 283 | " | Yukon river..... | | | | |
| 284 | Country rock..... | Russel creek..... | | " | | |
| 284 A | Limestone..... | Rock creek..... | | | | |
| 282 D | Quartzite, copper pyrites..... | Russel creek..... | Cu 3 | 0.3 | 2.1 | 13 25 |
| 286 | Quartz, antimony..... | Sixty mile river..... | | | Trace | |
| 286 A | " | " | | | 0.3 | 0 15 |
| 286 B | " | " | | | 2.1 | 1 05 |
| 286 C | " | " | | | 3.2 | 1 60 |
| 285 D | Mica schist, iron pyrites..... | Yukon river..... | | Trace | | |
| 287 | Quartz..... | Hunker creek..... | | " | | |
| 288 | " | " | | | | |
| 289 | " | Dominion creek..... | | 0.15 | | 3 10 |
| 290 | Quartz, iron pyrites..... | " | | 0.19 | | 3 94 |
| 290 A | " | " | | 0.24 | | 4 90 |
| 291 | " crushed..... | Gold run creek..... | | Trace | | |
| 292 | Quartz..... | Rock creek..... | | 6.8 | 0.4 | 140 75 |
| 292 A | Calcareous rock..... | " | | Trace | Trace | |
| 293 | Galen..... | 12 Mile river..... | Pb 18.6 | " | 9 | 19 38 |
| 294 | " | " | Pb 16.3 | " | 27.4 | 27 14 |
| 295 | " | " | Pb 64.0 | " | 70.0 | 88 85 |
| 296 | Quartz, iron pyrites..... | Rock creek..... | | Trace | | |
| 296 A | Calcareous rock..... | " | | | | |
| 297 | Quartz, iron pyrites..... | Hunker creek..... | | 0.31 | Trace. | 6 40 |
| 298 | Quartz..... | Rock creek..... | | | | |
| 298 | Quartz, iron pyrites..... | " | | | Trace. | |
| 300 | Quartz..... | " | | 0.66 | " | 3 30 |
| 300 A | Clay..... | " | | 0.32 | | 6 61 |
| 301 | Conglomerate..... | Indian river..... | | 0.25 | Trace. | 5 16 |
| 302 | Quartz..... | Bonanza creek..... | | 0.6 | " | 1 24 |
| 303 | Calcareous rock..... | 12 Mile river..... | | Trace. | " | |

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RETURN of the Assay Office at Dawson for the year ending June 30, 1904—Continued.

| No. of Assay | Description. | Locality. | Metal. | Per ton. | | Value per ton. |
|--------------|--------------------------------|---------------------|-----------|----------|---------|----------------|
| | | | | Gold. | Silver. | |
| | | | % | Oz. | Oz. | \$ cts. |
| 304 | Quartz, iron pyrites..... | Selwyn river..... | | 0.16 | Trace. | 3 30 |
| 304A | " "..... | "..... | | 0.3 | " | 6 20 |
| 304B | " galena..... | "..... | | 0.18 | " | 1 65 |
| 305 | " "..... | "..... | | Trace. | 2 | 1 00 |
| 305B | " "..... | "..... | | 0.12 | | 2 48 |
| 305A | " "..... | "..... | | 0.10 | | 2 06 |
| 306 | " "..... | "..... | | Trace. | | |
| 306A | " "..... | "..... | | " | | |
| 307 | " "..... | "..... | | 0.10 | | 2 06 |
| 307A | " "..... | "..... | | 0.10 | | 2 06 |
| 308 | " "..... | "..... | | Trace. | | |
| 308A | Quartz, iron pyrites..... | "..... | | 0.14 | Trace. | 2 89 |
| 309 | " "..... | "..... | | 0.42 | " | 8 68 |
| 309A | " "..... | "..... | Trace Pb. | 0.30 | " | 6 20 |
| 309B | " "..... | "..... | | 0.28 | 1.20 | 5 78 |
| 309C | " "..... | "..... | | 0.23 | Trace. | 4 75 |
| 310 | Quartz, iron stained..... | Rock creek..... | | 0.14 | " | 2 89 |
| 310A | " "..... | "..... | | Trace. | | |
| 311 | " iron stained..... | Last Chance..... | | 0.21 | | 4 34 |
| 312 | " "..... | Klondike river..... | | 0.26 | Trace. | 5 37 |
| 312A | " "..... | "..... | | 0.80 | " | 1 65 |
| 312B | Quartzite..... | "..... | | 0.60 | " | 1 24 |
| 312C | Mica schist..... | "..... | | 0.11 | " | 2 27 |
| 313 | Quartzite, iron pyrites..... | Yukon river..... | | 0.20 | " | 4 13 |
| 314 | Iron pyrites..... | Hunker creek..... | | 0.20 | " | 4 13 |
| 314A | Quartz and clay..... | "..... | | Trace. | | |
| 314B | " "..... | "..... | | Trace. | | |
| 315 | Conglomerate..... | Eureka creek..... | | 0.12 | Trace. | 2 48 |
| 316 | Quartz and limestone..... | Big Horn river..... | | 3.2 | " | 66 14 |
| 316A | " "..... | "..... | | 0.60 | " | 12 40 |
| 316B | " "..... | "..... | | 2.50 | " | 51 67 |
| 316C | " "..... | 12 Mile river..... | | 1.00 | Trace. | 20 67 |
| 317 | Conglomerate..... | "..... | | 0.06 | " | 1 24 |
| 317A | " "..... | "..... | | 0.15 | " | 3 10 |
| 318 | " "..... | Indian river..... | | 0.23 | " | 4 75 |
| 319 | Quartzite, iron stained..... | Swede creek..... | | Trace. | | |
| 320 | Conglomerate..... | 12 Mile river..... | | " | | |
| 320A | " "..... | "..... | | " | | |
| 320B | " "..... | "..... | | 0.05 | | 1 03 |
| 321 | Quartzite, iron pyrites..... | Gold Bottom..... | Trace Pb. | 0.90 | 2 | 19 60 |
| 322 | Conglomerate..... | 12 Mile river..... | | 0.12 | Trace. | 2 48 |
| 322 | " "..... | "..... | | 0.17 | " | 3 51 |
| 322 | " "..... | "..... | | 0.09 | " | 1 86 |
| 322 | Sand-stone..... | "..... | | | | |
| 323 | Quartz, iron pyrites..... | Selwyn river..... | | 0.51 | Trace. | 10 74 |
| 324 | " "..... | Eldorado creek..... | | Trace. | | |
| 325 | Quartzite..... | Reindeer creek..... | | " | | |
| 326 | Quartz..... | Klondike river..... | | 0.28 | Trace. | 5 78 |
| 327 | Galena..... | Scroggie creek..... | Pb. 0.45 | | 3 | 1 95 |
| 328 | Quartz, iron stained..... | Dominion creek..... | | 0.32 | Trace. | 6 61 |
| 329 | " "..... | Gold Run..... | | 0.14 | " | 2 89 |
| 329X | " "..... | All Gold creek..... | | | | |
| 329A | " and schist..... | Gold Run..... | | 0.23 | Trace. | 4 75 |
| 329B | " iron stained..... | "..... | | 0.35 | " | 7 23 |
| 330 | " "..... | "..... | | 0.20 | " | 4 13 |
| 330A | Quartz..... | Gold Run..... | | 0.10 | trace. | 2 06 |
| 330B | " "..... | "..... | | | | |
| 331 | Conglomerate..... | 12 Mile river..... | | 0.10 | trace. | 2 06 |
| 331A | " "..... | "..... | | trace. | | |
| 332 | Quartz, arsenical pyrites..... | Mayo river..... | | 0.54 | trace. | 15 91 |
| 333 | Quartzite..... | Lepine creek..... | | | | |
| 333A | " "..... | " "..... | | trace. | trace. | |
| 333B | " "..... | " "..... | | " | | |
| 333C | " "..... | " "..... | | " | | |
| 334 | " iron pyrites..... | Bonanza creek..... | | 0.16 | | 3 30 |
| 334A | Quartzite, mica schist..... | "..... | | trace. | | |
| 334B | Quartz, crushed..... | "..... | | 0.10 | | 2 06 |

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RETURN of the Assay Office at Dawson for the year ending June 30, 1904.—*Continued.*

| No. of Assay | Description. | Locality. | Metal. | Per ton. | | Value per ton. |
|--------------|-------------------------------|-----------------------|----------|----------|---------|----------------|
| | | | | Gold. | Silver. | |
| | | | % | Oz. | Oz. | \$ cts. |
| 335 | Conglomerate..... | Indian river..... | | trace. | | |
| 335 A | " " " " " " | " " " " " " | | | | |
| 336 | Quartz, with free gold..... | Eldorado..... | | 7.30 | trace. | 150 89 |
| 336 A | Quartz, mica schist..... | " " " " " " | | 0.09 | " | 1 86 |
| 337 | Conglomerate..... | 12 Mile river..... | | 0.05 | " | 1 03 |
| 337 A | " " " " " " | " " " " " " | | trace. | " | |
| 338 | Quartz, iron stained..... | Eldorado creek..... | | 0.20 | " | 4 13 |
| 338 A | " " " " " " | " " " " " " | | 0.08 | " | 1 65 |
| 338 B | " " " " " " | " " " " " " | | 0.12 | " | 2 48 |
| 339 | Conglomerate..... | 12 Mile river..... | | trace. | | |
| 340 | Quartzite, iron pyrites..... | Lepine creek..... | | " | | |
| 340 A | " " " " " " | " " " " " " | | " | | |
| 340 B | " " " " " " | " " " " " " | | " | | |
| 340 C | " " " " " " | " " " " " " | | " | | |
| 341 | Porphyry..... | Eldorado creek..... | | 0.53 | trace. | 10 95 |
| 342 | Quartz, iron stained..... | Klondike river..... | | trace. | | |
| 343 | Quartzite..... | " " " " " " | | " | | |
| 344 | Conglomerate..... | Rock creek..... | | 0.10 | trace. | 2 06 |
| 345 | Quartz porphyry..... | " " " " " " | | 0.09 | " | 1 86 |
| 346 | Porphyry..... | 12 Mile river..... | | 0.70 | " | 14 47 |
| 347 | Black sand, iron pyrites..... | Hunker creek..... | | 0.70 | " | 14 47 |
| 348 | Conglomerate..... | Mayo lake..... | | 0.07 | " | 1 44 |
| 349 | " sandstone..... | Rock creek..... | | trace. | | |
| 350 | Crushed sample..... | Klondike river..... | | 0.20 | trace. | 4 13 |
| 351 | Calcareous..... | Eldorado creek..... | | | | |
| 351 A | Quartz, iron stained..... | " " " " " " | | 2.70 | trace. | 55 80 |
| 351 B | Quartz with free gold..... | " " " " " " | | 0.16 | " | 3 30 |
| 352 | Quartz, iron stained..... | " " " " " " | | 0.12 | " | 2 48 |
| 353 | " " " " " " | Sixty Mile river..... | | 0.12 | " | 2 48 |
| 354 | " " " " " " | Duncan creek..... | Pb. 2, | trace. | 3 | 3 10 |
| 355 | Copper pyrites..... | White horse..... | Cu. 5.4, | 0.3 | 2.3 | 18 15 |
| 356 | Quartz..... | Moosehide..... | | trace. | | |
| 356 A | " " " " " " | " " " " " " | | | | |
| 357 B | Quartz, iron pyrites, Pb..... | Duncan creek..... | Pb. 6.2, | " | 37.00 | 23 46 |
| 357 A | " " " " " " | " " " " " " | Pb. 8 | " | 4.00 | 8 40 |
| 357 B | Gravel, assayed for tin..... | " " " " " " | | | | |
| 358 | Calcareous..... | Hunker creek..... | | | | |
| 359 | Quartzite..... | Klondike river..... | | 0.15 | trace. | 3 10 |
| 360 | Porphyry..... | Yukon river..... | | | | |
| 361 | Quartz, iron pyrites..... | Victoria gulch..... | | 0.16 | trace. | 3 30 |
| 362 | Quartz..... | Eldorado..... | | trace. | | |
| 363 | " " " " " " | Sulphur..... | | | | |
| 364 A | Quartz, iron stained..... | Hunker creek..... | | 0.2 | trace. | 4 13 |
| 364 B | " " " " " " | " " " " " " | | 0.4 | " | 8 26 |
| 365 | Quartzite..... | Bonanza creek..... | | | | |
| 366 | Conglomerate..... | Montana creek..... | | 0.10 | trace. | 2 06 |
| 367 | Quartz, iron pyrites..... | Sixty Mile river..... | | 0.60 | " | 12 40 |
| 367 A | " " " " " " | Glacier creek..... | | 0.15 | " | 3 10 |
| 368 | Quartz, iron stained..... | 12 Mile river..... | | 0.53 | " | 10 95 |
| 368 A | Quartz, iron stained..... | 12 Mile river..... | | 0.22 | Trace. | 4 54 |
| 369 | Talcum, copper pyrites..... | " " " " " " | Cu. 0.72 | Trace. | " | 12 96 |
| 369 A | Talcum..... | Klondike river..... | | " | " | |
| 369 B | Iron pyrites..... | " " " " " " | | 0.20 | " | 4 13 |
| 370 | Conglomerate..... | Indian river..... | | 0.10 | " | 2 06 |
| 371 | " " " " " " | 12 Mile river..... | | Trace. | | |
| 372 | Quartz..... | Rock creek..... | | 0.11 | Trace. | 2 27 |
| 372 A | " " " " " " | " " " " " " | | 0.18 | " | 3 71 |
| 373 | Porphyry..... | 12 Mile river..... | | 2.20 | " | 45 47 |
| 374 | Quartz, with free gold..... | Violet group..... | | 5.90 | " | 122 15 |
| 375 | Quartz, iron stained..... | Rock creek..... | | 1.4 | " | 28 93 |
| 376 | " " " " " " | " " " " " " | | 0.7 | " | 14 47 |
| 377 | Black sand (sluice box)..... | Hunker creek..... | | 103.30 | 12.00 | 2,141 21 |
| 378 | Quartz, iron pyrites..... | Eldorado creek..... | | 0.10 | Trace. | 2 06 |
| 378 A | " " " " " " | " " " " " " | | 0.17 | " | 3 51 |
| 380 | Quartzite..... | Bonanza creek..... | | Trace. | | |
| 380 A | " " " " " " | " " " " " " | | 0.60 | " | 12 40 |
| 380 B | Quartz, iron stained..... | " " " " " " | | 3.00 | Trace. | 62 01 |

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RETURN of the Assay Office at Dawson for the year ending June 30, 1904.—*Continued.*

| No. of Assay | Description. | Locality. | Metal. | Per ton. | | Value per ton. |
|--------------|----------------------------------|-------------------------|----------|----------|---------|----------------|
| | | | | Gold. | Silver. | |
| | | | % | Oz. | Oz. | \$ cts. |
| 381 | Calcareous..... | Klondike river..... | | Trace. | | |
| 381A | " | " | | | | |
| 382 | Quartz..... | Lepine creek..... | | 0.09 | Trace. | 1 86 |
| 383 | " | Eureka creek..... | | Trace. | | |
| 384 | Crushed sample..... | Stewart river..... | | | | |
| 385 | Conglomerate..... | Forty Mile river..... | | 0.14 | Trace. | 3 51 |
| 386 | Copper pyrites..... | White river..... | Cu. 26.2 | | | 47 16 |
| 386A | " | " | | 0.2 | 5.3 | 6 70 |
| 386B | Limestone..... | " | | | | |
| 387 | Quartz..... | Gold Run..... | | 0.07 | Trace. | 1 44 |
| 387A | " | " | | 0.80 | " | 16 53 |
| 388 | " | Stewart river..... | | 0.17 | 0.2 | 3 61 |
| 411 | Quartz, iron pyrites..... | Eldorado creek..... | | 0.12 | Trace. | 2 48 |
| 411A | " | " | | 0.17 | " | 3 51 |
| 412 | Quartz, iron stained..... | Violet Ledge..... | | 0.30 | " | 6 20 |
| 412A | " | " | | | | |
| 413 | Quartz, iron pyrites..... | Eagle City, Alaska..... | | 0.60 | Trace. | 12 40 |
| 415 | Crushed quartz, mica schist..... | Hunker creek..... | | 1.7 | " | 35 13 |
| 416 | Quartz, iron stained..... | Eldorado creek..... | | 0.10 | " | 2 06 |
| 417 | " | Hunker creek..... | | 0.19 | " | 4 11 |
| 418 | Quartz, iron pyrites..... | " | | 0.23 | " | 4 75 |
| 420 | Quartz..... | Indian river..... | | 0.45 | " | 9 30 |
| 421 | Quartz, iron stained..... | Yukon river..... | | 0.24 | " | 4 96 |
| 422 | Quartz..... | 12 Mile river..... | | 0.29 | " | 5 99 |
| 423 | Quartz, mica schist..... | Hunker creek..... | | 1.80 | " | 37 20 |
| 426 | Quartz, magnetic iron..... | " | | 0.21 | " | 4 34 |
| 426A | " | " | | | | |
| 427 | Quartz, iron stained..... | Bonanza creek..... | | 0.30 | 0.20 | 6 30 |
| 428 | Quartz, iron pyrites..... | Dominion creek..... | | 0.15 | Trace. | 3 10 |
| 428A | " | " | | 0.10 | " | 2 06 |
| 428B | " | " | | Trace. | " | |
| 429 | Quartz, iron stained..... | Bonanza creek..... | | 0.60 | " | 12 40 |
| 429A | " | " | | 0.50 | " | 10 03 |
| 431 | Quartz..... | Sixty Mile river..... | | Trace. | 2.10 | 1 05 |
| 431A | " | " | | 0.14 | 2.30 | 4 04 |
| 436 | Conglomerate..... | Hunker creek..... | | Trace. | Trace. | |
| 437 | Quartz, mica schist..... | Bonanza creek..... | | 0.04 | " | 0 82 |
| 438 | Quartz, iron stained..... | Lepine creek..... | | 0.20 | " | 4 13 |
| 439 | Crushed sample..... | Violet group..... | | 0.40 | " | 8 26 |
| 439B | " | " | | 0.04 | " | 0 82 |
| 439C | " | " | | Trace. | " | |
| 440 | Mica schist, talcum..... | Bonanza creek..... | | 0.08 | " | 1 65 |
| 440A | " | " | | 0.08 | " | 1 65 |
| 441 | Lead (shots)..... | Lovett gulch..... | Pb. 93 | | " | 74 40 |
| 442 | Quartzite..... | Stewart river..... | | Trace. | | |
| 442A | Quartzite..... | Stewart river..... | | Trace. | | |
| 442B | Quartz..... | " | | 0.27 | Trace. | 5 53 |
| 443 | Crushed sample..... | Yukon river..... | | 0.10 | " | 2 06 |
| 444 | Copper pyrites..... | Pelly river..... | | Trace. | 2.50 | 1 25 |
| 444A | " | " | Cu. 14.3 | | | 28 60 |
| 445 | Quartz, iron stained..... | Lepine creek..... | | 0.16 | Trace. | 3 30 |
| 445A | " | " | | 0.14 | " | 2 89 |
| 445B | " | " | | 0.14 | " | 2 89 |
| 445C | " | " | | 0.33 | " | 6 82 |
| 446 | Quartz, iron pyrites..... | Klondike river..... | | 0.30 | 5.00 | 8 70 |
| 447 | Quartz with galena..... | Violet Ledge..... | | 0.25 | 7.20 | 8 76 |
| 448 | Quartz..... | Forty Mile river..... | | 0.28 | Trace. | 5 78 |
| 449 | Quartzite, iron pyrites..... | Gold Run creek..... | | 0.19 | " | 3 94 |
| 450 | Graphitic schist..... | Bonanza creek..... | | 0.12 | " | 2 27 |
| 450A | Quartz..... | " | | Trace. | | |
| 451 | Iron pyrites..... | Stewart river..... | | 0.19 | " | 3 92 |
| 452 | Quartz, mica schist..... | Indian river..... | | 0.30 | " | 6 20 |
| 453 | Calcareous rock..... | Hunker creek..... | | Trace. | | |
| 454 | Quartz..... | Lepine creek..... | | 0.42 | " | 8 78 |
| 455 | Copper pyrites..... | Sulphur creek..... | | | | |
| 455A | " | " | Cu. 0.90 | | | 1 80 |
| 455B | Copper glance with Pb. S..... | " | | 0.20 | 2 | 5 13 |

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RETURN of the Assay Office at Dawson for the year ended June 30, 1904—*Concluded*.

| No. of Assay | Description. | Locality. | Metal. | Per ton. | | Value per Ton. |
|--------------|-----------------------|-----------------|---------|----------|---------|----------------|
| | | | | Gold. | Silver. | |
| | | | % | Oz. | Oz. | \$ cts. |
| 455 C | Quartz, copper glance | Sulphur creek | Cu. 6·3 | | | 12 60 |
| 455 D | Quartz, iron stained | " | | 0·70 | Trace. | 14 47 |
| 456 | Serpentine rock | Quartz creek. | | | | |
| 456 A | Mica schist | " | | | | |
| 389 | Galena | Klondike river | Pb. 70 | 0·06 | | 56 00 |
| 389 A | " | " | | 0·06 | 63 | 32 74 |
| 389 B | Quartz, iron stained | " | | 0·6 | Trace. | 6 20 |
| 390 | Quartz, iron pyrites | Violet group | | 0·10 | " | 2 06 |
| 391 | Quartzite | Little Blanche | | 0·12 | " | 2 48 |
| 392 | Quartz, iron pyrites | Violet group | | 0·17 | " | 3 30 |
| 392 A | Crushed sample | " | | 0·09 | " | 1 86 |
| 393 | Quartz, magnetic iron | Bonanza creek | W. 3·3 | | | 45 54 |
| 394 | Quartz, iron stained | Violet group | | 0·6 | Trace. | 12 40 |
| 394 A | Crushed sample | " | | 0·15 | " | 3 10 |
| 395 | Quartz, iron stained | " | | 0·45 | " | 9 30 |
| 395 A | Gouge matter | " | | 0·64 | " | 13 22 |
| 396 | Quartz | Lepine creek | | 0·10 | " | 2 06 |
| 396 A | Cupellation | " | | | | |
| 397 | Quartz, iron pyrites | Violet group | | 0·35 | " | 7 23 |
| 398 | Quartz | Forty Mile | | 0·20 | 1·1 | 4 68 |
| 399 | Quartz, iron stained | Violet group | | 0·10 | Trace. | 2 06 |
| 399 A | Quartz and talcum | " | | 0·21 | " | 4 34 |
| 400 | Quartz, iron pyrites | " | | 0·15 | " | 3 10 |
| 400 A | Quartz and talcum | " | | 0·18 | " | 3 72 |
| 401 | Quartz | Lepine creek | | | | |
| 401 A | " | " | | | | |
| 402 | Quartz, iron stained | Hunker creek | | 0·22 | " | 4 54 |
| 403 | Crushed sample | Boucher creek | W. 3·4 | | | 46 92 |
| 404 | Quartz porphyry | Opposite Dawson | | Trace. | Trace. | |
| 405 | Iron pyrites | Hunker creek | | 0·80 | " | 16 33 |
| 406 | Crushed sample | Violet group | | 0·70 | " | 14 47 |
| 406 A | " | " | | Trace. | " | |
| 407 | Quartz, iron stained | Gold Run | | 0·36 | " | 7 52 |
| 408 | " | Portland creek | | 0·20 | " | 2 06 |
| 409 | Quartz | Clear creek | | Trace. | " | |
| 410 | Quartzite | Violet group | | " | " | |
| 410 A | " | " | | " | " | |
| 410 B | Quartz | " | | " | " | |

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RETURNS OF THE ASSAY OFFICE, WHITEHORSE, YUKON TERRITORY.

Assays made during month ending December 31, 1903.

| No. | Description of Rock. | Location. | Condition of Sample. | Au. per Ton. | | Ag. per Ton. | | Metals. | Per cent. | Total Value. |
|-----|----------------------|-------------|----------------------|--------------|--------|--------------|------|---------|-----------|--------------|
| | | | | Oz. | Dwt. | Oz. | Dwt. | | | |
| 1 | Quartz. | Bennett | Average | .. | 4.12 | Trace. | .. | .. | .. | 1 03 |
| 2 | " | " | " | .. | Trace. | " | .. | .. | .. | 4 96 |
| 3 | " | " | " | .. | Trace. | " | .. | .. | .. | 966 00 |
| 4 | " | " | " | .. | Trace. | " | .. | .. | .. | 214 37 |
| 5 | " | " | " | .. | Trace. | " | .. | .. | .. | 163 55 |
| 6 | " | " | " | .. | Trace. | " | .. | .. | .. | 26 27 |
| 7 | " | " | " | .. | Trace. | " | .. | .. | .. | 35 67 |
| 8 | " | " | " | .. | Trace. | " | .. | .. | .. | 33 98 |
| 9 | " | " | " | .. | Trace. | " | .. | .. | .. | 45 72 |
| 10 | " | " | " | .. | Trace. | " | .. | .. | .. | 19 792 |
| 11 | Sulphurets Ag. | Carlton | Selected | .. | .. | Trace. | .. | .. | .. | 45 665 |
| 12 | " | " | " | .. | .. | Trace. | .. | .. | .. | 116 13 |
| 13 | " | " | " | .. | .. | Trace. | .. | .. | .. | 47 13 |
| 14 | Chalcopryite. | Whitehorse. | Average | .. | .. | Trace. | .. | .. | .. | 5 511 |
| 15 | " | " | " | .. | .. | Trace. | .. | .. | .. | 10 511 |
| 16 | " | " | " | .. | .. | Trace. | .. | .. | .. | 14 272 |
| 17 | " | " | " | .. | .. | Trace. | .. | .. | .. | 13 556 |
| 18 | Bornite. | " | " | .. | .. | Trace. | .. | .. | .. | 33 98 |
| 19 | " | " | " | .. | .. | Trace. | .. | .. | .. | 45 72 |
| 20 | " | " | " | .. | .. | Trace. | .. | .. | .. | 49 35 |
| 21 | " | " | " | .. | .. | Trace. | .. | .. | .. | 116 13 |
| 22 | Quartz and sulph. | " | " | .. | .. | Trace. | .. | .. | .. | 46 456 |
| 23 | " | " | " | .. | .. | Trace. | .. | .. | .. | 18 897 |
| 24 | Chalcocite. | " | " | .. | .. | Trace. | .. | .. | .. | 5 511 |
| 25 | Bornite. | " | " | .. | .. | Trace. | .. | .. | .. | 13 77 |
| | Assays, Au, Ag. | " | Selected | .. | .. | Trace. | .. | .. | .. | 7 047 |
| | " | " | Average | .. | .. | Trace. | .. | .. | .. | 63 385 |
| | Totals assays. | " | " | .. | .. | Trace. | .. | .. | .. | 158 46 |
| | | | | .. | .. | Trace. | .. | .. | .. | 72 82 |

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Assays made during month of February, 1904.

| | | | | | | | |
|---|---------------------|------------------------|--------------|--------|--------|--------|-------|
| 1 | Quartz..... | Bullion creek..... | Average..... | Trace. | 16 | Trace. | 8 00 |
| 2 | "..... | Caribou..... | "..... | "..... | "..... | "..... | |
| 3 | "..... | "..... | "..... | "..... | "..... | "..... | |
| 4 | "..... | "..... | "..... | "..... | 4 | "..... | 2 00 |
| 5 | Chalcopryite..... | Livingstone creek..... | "..... | "..... | .. | 10 | 16 06 |
| | Assays, Au, Ag..... | | | | | | |
| | " Cu..... | | | 2 | | | |
| | Total assays..... | | | | | | |
| | | | | | | | |

Assays made during month of March, 1904.

| | | | | | | | |
|----|---------------------|------------------------|--------------|--------|--------|--------|--------|
| 1 | Quartz..... | Kimberley creek..... | Average..... | Trace. | 2 | Trace. | 2 06 |
| 2 | "..... | "..... | "..... | "..... | "..... | "..... | |
| 3 | "..... | "..... | "..... | "..... | "..... | "..... | |
| 4 | "..... | "..... | "..... | "..... | "..... | "..... | |
| 5 | Sulphides Cu..... | Livingstone creek..... | "..... | "..... | 1-15 | 7 | 29 88 |
| 6 | Bornite..... | Whitehorse..... | "..... | "..... | 1-10 | 4-10 | 35 28 |
| 7 | "..... | "..... | "..... | "..... | 2 | 8 | 54 51 |
| 8 | "..... | "..... | "..... | "..... | 2-12 | 3-12 | 29 90 |
| 9 | "..... | "..... | "..... | "..... | 4 | 18 | 28 83 |
| 10 | "..... | "..... | "..... | "..... | 1-12 | 18-12 | 26 84 |
| 11 | Schist..... | White river..... | "..... | Trace. | 3 | 1 | 1 50 |
| 12 | "..... | "..... | "..... | "..... | "..... | "..... | |
| 13 | "..... | "..... | "..... | "..... | "..... | "..... | |
| 14 | Quartz..... | Whitehorse..... | "..... | "..... | 2-12 | "..... | |
| 15 | Chalcocite..... | "..... | "..... | Trace. | "..... | "..... | |
| 16 | Schist..... | Little Salmon..... | Selected | "..... | 4 | 16 | 148 82 |
| 17 | Conglomerate..... | Kilwaney lake..... | Average | "..... | 1-12 | "..... | 1 61 |
| 18 | Bornite..... | Whitehorse..... | Selected | "..... | 1 | 10 | 117 44 |
| | Assays, Au, Ag..... | | | | | | |
| | " Cu..... | | | | | | |
| | Total assays..... | | | | | | |
| | | | | | | | |

ASSAYS made during month of April, 1904.

| No. | Description of Rock. | Location. | Condition of Sample. | Au. per ton. | Ag. per ton. | Metals. | Per Cent. | Total Value. |
|-----|----------------------|--------------------|----------------------|--------------|--------------|---------|-----------|--------------|
| 1 | Quartz..... | Fish river..... | Average..... | Oz. Dwt. | Oz. Dwt. | | | \$ cts. |
| 2 | "..... | "..... | "..... | Trace. | Trace. | Cu. | 9.208 | 23 02 |
| 3 | "..... | "..... | "..... | "..... | 2 1 12 | Cu. | | 26 60 |
| 4 | Schist..... | Little Salmon..... | "..... | "..... | 10 | Cu. | 11.428 | |
| 5 | Conglomerate..... | Pully river..... | "..... | "..... | Trace. | | | |
| 6 | Quartz..... | White Horse..... | "..... | "..... | 10 | | | |
| 7 | Chalcopyrite..... | "..... | "..... | "..... | 1 | Cu. | 18.571 | 45 45 |
| 8 | Quartz..... | "..... | "..... | "..... | | | | |
| 9 | "..... | "..... | "..... | "..... | | | | |
| 10 | "..... | "..... | "..... | "..... | 1 1 12 | | | |
| 11 | "..... | "..... | "..... | Trace. | Trace. | Cu. | Trace. | |
| 12 | Chalcocite..... | "..... | Selected..... | "..... | 5 8 | Cu. | 57.989 | 147 67 |
| 13 | Quartz..... | "..... | Average..... | "..... | Trace. | Cu. | | |
| | Assays, Au., Ag..... | | | | | | | |
| | "..... | | | | | | | |
| | Total assays..... | | | | | | | |

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ASSAYS made during month of May, 1904.

| | | | | | | | | |
|----|--------------------|------------------|-------------------|--------|------|-----|--------|--------|
| 1 | Chalcopyrite..... | White Horse..... | Average..... | Trace. | 1 12 | Cu. | 8.571 | 22 22 |
| 2 | Bornite..... | "..... | Surface rock..... | "..... | 6 6 | Cu. | 15.000 | 40 65 |
| 3 | "..... | "..... | "..... | "..... | 2 17 | Cu. | 10.227 | 27 96 |
| 4 | Chalcopyrite..... | "..... | Average..... | 1 12 | 4 5 | Cu. | 13.067 | 34 19 |
| 5 | Bornite..... | "..... | "..... | 1 6 | 4 4 | Cu. | 31.818 | 83 61 |
| 6 | Quartz..... | "..... | "..... | Trace. | 2 2 | | | |
| 7 | "..... | "..... | "..... | 1 6 | 3 12 | | | 1 37 |
| 8 | "..... | "..... | "..... | 0 15 | 4 9 | | | 0 74 |
| 9 | Sulphides, Fe..... | "..... | "..... | 1 4 | 3 | Cu. | .864 | 3 29 |
| 10 | "..... | "..... | "..... | 0 12 | 3 | Cu. | 1.111 | 3 30 |
| 11 | Quartz..... | "..... | Surface rock..... | Trace. | 3 | | | |
| 12 | Sulphides, Fe..... | "..... | Crushed..... | 1 15 | 15 | Cu. | 2.392 | 7 88 |
| 13 | Quartz..... | "..... | Average..... | 0 16 | 4 8 | Cu. | 1.724 | 3 28 |
| 14 | "..... | "..... | "..... | Trace. | 9 | Cu. | 19.540 | 58 05 |
| 15 | Chalcopyrite..... | "..... | "..... | 3 14 | 4 | Cu. | | |
| 16 | Bornite..... | "..... | Selected..... | 3 19 | 7 | Cu. | 40.229 | 113 34 |

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| 17 | Quartz. | " | Average. | Trace. | Trace. |
|----|-------------------|----|----------|--------|--------|
| 18 | " | " | " | " | " |
| | Assays, A.L., Ag. | 18 | | | |
| | " Cu. | 11 | | | |
| | Total assays. | 29 | | | |

Assays made during month of June, 1904.

| 1 | Quartz. | Wheaton Valley | Average. | 1-6 | 3 | 8 | 6-16 | 2-99 |
|----|------------------|----------------------|------------|----------|----|------|------|--------|
| 2 | " | " | " | 1-8 | 1 | 5 | 5 | 2-05 |
| 3 | " | " | " | 1 | 1 | 8-16 | 8-16 | 1-65 |
| 4 | Galena. | " | " | 1-8 | 4 | 6 | 6 | 2-60 |
| 5 | " | " | " | 2 | 5 | 6 | 6 | 4-71 |
| 6 | Quartz. | " | " | 1-8 | 1 | 6-16 | 6-16 | 2-05 |
| 7 | " | Bennett | " | Trace. | 1 | 19 | 1 | 1-00 |
| 8 | " | " | " | 0-18 | 1 | 5-6 | 5-6 | 1-42 |
| 9 | " | " | " | 2 | 7 | 7 | 7 | 2-23 |
| 10 | " | Nares Lake, Caribou | " | 4 | 15 | 13-8 | 13-8 | 4-50 |
| 11 | Galena. | " | Selected | 8-16 | 24 | 8 | 8 | 21-26 |
| 12 | Quartz. | " | Average | 2 | 8 | 7 | 7 | 2-26 |
| 13 | Zinc blende. | " | Selected | 7-8 | 7 | 7-16 | 7-16 | 17-87 |
| 14 | Galena. | " | " | 12 | 5 | 4 | 4 | 15-00 |
| 15 | Bullion | " | Placer Au. | \$17-125 | 5 | 4 | 4 | 17-21 |
| 16 | " | Fourth of July creek | " | 1-8 | 5 | 5 | 5 | 1-52 |
| 17 | Bullion | Bullion creek. | Average. | 3 | 15 | 15 | 15 | 3-47 |
| 18 | Chalcopryite | White Horse | " | 1 | 1 | 7 | 7 | 1-70 |
| 19 | Quartz. | " | " | 1 | 1 | 3 | 3 | 1-10 |
| 20 | Native copper | " | Placer Cu. | Trace. | 4 | 4 | 4 | 244-70 |
| 21 | Bornite | White Horse | Average | 2 | 8 | 8 | 8 | 48-329 |
| 22 | " | " | " | " | 7 | 7 | 7 | 44-007 |
| 23 | Cinnabar. | " | Float. | \$18-061 | 7 | 7 | 7 | 32-900 |
| 24 | Bullion | Livingstone creek. | Placer Au. | Trace. | 7 | 7 | 7 | 18-13 |
| 25 | Sulphides Fe. | Bullion creek. | " Fe | Trace. | 7 | 7 | 7 | |
| | Assays, Au., Ag. | | | | | | | |
| | " Cu. | | | | | | | |
| | " Zn. | | | | | | | |
| | " Hg | | | | | | | |
| | Total assays. | | | | | | | |

APPENDIX.

BRIEF ACCOUNT OF AN ELECTROLYTIC METHOD FOR PRODUCING
BICALCIC PHOSPHATE FOR USE AS A FERTILIZER OUT OF
UNSERVICEABLE RAW PHOSPHATE.

It is a well-known fact that large quantities of raw phosphate occur which are not available for the production of superphosphate, either by reason of their low percentage of phosphoric acid, or on account of other drawbacks attaching to them. That is the case with phosphorites and apatites containing less than 50 per cent of tricalcic phosphate; also with raw material containing a high percentage of iron, whether the iron occurs in combination with phosphoric acid or in the form of magnetite or hematite (in products of magnetic separation). The method here described is for producing at a profitable rate a thoroughly satisfactory phosphoric acid fertilizer out of the above-indicated raw products. The method is protected by patent rights.

I.—GENERAL FEATURES OF THE METHOD.

In an apparatus expressly adapted for the method, a solution of chlorate or perchlorate of sodium is electrolyzed. In the anode chamber an acid is thereby generated—chloric or perchloric acid—and in the cathode chamber a solution of caustic soda. The electrolysis is continued until a certain quantity of the dissolved salt has been separated into acid and alkali. The anode and the cathode solutions are led off into separate receivers. The acid anode solution is then allowed to work in a dissolving battery upon raw phosphate, in which process the phosphate is dissolved. Into the solution thus obtained the alkaline cathode solution is introduced, the whole being meanwhile kept vigorously stirred, until the liquid bears evidence of a slightly acid reaction; to obtain that result about half the cathode solution is required. In the process, bicalcic phosphate falls as a finely crystalline precipitate, which is drained off by filtration and washed. The filtrate, which contains one-third of the lime originally dissolved, but hardly any phosphoric acid, now has added to it the remainder of the cathode solution, whereupon the greatest part of the lime in the solution is precipitated as hydrate; by the introduction of some carbonic acid the rest is precipitated as carbonate; the lime precipitation is allowed to settle. The solution remaining above it is then drawn off. The original electrolyte is regenerated by its means and enters again the electrolyzing apparatus.

II.—THE RAW MATERIAL AND ITS UTILIZATION.

In applying the method, both phosphorites and apatites of very varying origin (*e.g.* those obtainable from Sweden, Norway and France, and also insular phosphate) have been employed. The percentage of phosphoric acid has varied between 9 and 40, corresponding to a variation of from 20 per cent to 88 per cent of tricalcic phosphate, without that, however, having any effect upon the course of the process. The raw material may be in a finely pulverized state, but not necessarily so, for raw phosphate has been used in lumps of a diameter of as much as 5 cm. The phosphate of lime present in the raw material is completely dissolved, provided, that is to say, that no grains of phosphate are embedded in silicates or other insoluble minerals, which may occur if the crushing has not reduced the raw material to fairly small-sized lumps.

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Out of the amount of acid generated per ampere-hour, 1.33 grammes of tricalcic phosphate is dissolved. The voltage required is about 5 volts per cell. The phosphoric acid remaining in the solution, on the precipitation of bicalcic phosphate, is about 1 per cent of that present originally in the raw material.

Of the silicates or iron ore (oxides of iron) mingled in the raw phosphate no appreciable quantity is dissolved.

If the raw phosphate contains carbonate of lime, it is dissolved by the acid simultaneously with the phosphate, chlorate (perchlorate) of lime, and carbonic acid being formed and the latter disappearing; consequently, the consumption of acid is rendered greater by the presence of the carbonate of lime, which is, from an economical point of view, a disadvantage. In this process, 1 per cent of carbonic acid in the raw material involves practically the same amount of consumption of acid, or of energy, as 1 per cent of phosphoric acid. On the subsequent addition, however, of the alkaline cathode solution, the same high-percentage bicalcic phosphate is precipitated. Consequently, an equally excellent fertilizer is obtainable out of raw phosphate containing carbonate as out of that free from it, though at an expenditure of more acid or of more electric current. In any case, by the electrolytic method it will be possible to make use of raw phosphates containing more carbonate than is the case in the manufacture of superphosphate; on the other hand, they are not the most suited to be first resorted to.

III.—THE NATURE OF THE ELECTROLYTE.

With reference to the electrolyte, the salt used should be of such a nature that its acid may yield in conjunction with lime an easily soluble salt and of a kind which is not subject to change during electrolysis. As electrolytes solution of perchlorate of sodium or chlorate of sodium are suitable, or else mixtures of those salts, the presence of other salts, for instance chloride, in small quantities is of no account.

Both these salts are thoroughly suited to the purpose, perchlorate of sodium being the best that could be desired. Both chlorate and perchlorate of sodium are exceedingly easily soluble salts—1 part of chlorate of sodium being soluble in 1.05 parts of water at an ordinary temperature, while perchlorate of sodium is still more easily soluble; that is of importance, inasmuch as the washing of the precipitated bicalcic phosphate is thereby rendered considerably easier.

A slight loss of the electrolyte by spilling in the process of washing, &c., always occurs. The amount of that loss will not exceed a value of \$1.50 per ton of the finished article, if perchlorate is employed.

IV.—THE COMPOSITION OF THE PHOSPHATE AND ITS VALUE AS A FERTILIZER.

The normal percentage of phosphoric acid (P_2O_5) soluble by citrate, contained in the bicalcic phosphate produced by the electrolytic method, is about 34.9 irrespective of the character of the raw material. The quantity of the phosphoric acid soluble by citrate has been determined in accordance with the method officially recognized for that purpose in Germany. As the quantity of phosphoric acid soluble by citrate in the bicalcic phosphate obtained constitutes about 95 per cent of all the phosphoric acid in the product the total percentage of phosphoric acid in the bicalcic phosphate works out at 35.8 on an average.

Extensive experiments in cultivation with the aid of bicalcic phosphate, prepared by the electrolytic method, have been carried out by Professor H. G. Söderbaum, Chemist to the Swedish Royal Academy of Agriculture. Exhaustive reports of the results of these experiments are to be found in 'Meddelanden från K. Landbruksakademiens Experimentalfält,' Nos. 75 and 78 (1902 and 1903), and a report of experiments in the cultivation of oats is given in 'The Experiment Station Record,' edited

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by the United States Department of Agriculture, Washington, D.C., Vol. XIV., No. 10, pages 951-2 (1903). In these comparative experiments in cultivation the amounts used of superphosphate and bicalcic phosphate have been so determined, that equal weights were used, per superficial unit of soil, of phosphoric acid soluble by citrate from bicalcic phosphate and of phosphoric acid soluble by water from superphosphate.

The result of the experiments in cultivation is that the phosphoric acid soluble by citrate in the bicalcic phosphate proves to possess the same fertilizing value as the phosphoric acid soluble by water in the superphosphate, and consequently the same value as a trade product. That result might, indeed, have been foreseen, inasmuch as it is probable that the superphosphate in the soil is rapidly transformed into bicalcic phosphate through the agency of the compounds of lime present there. Retrogradation of soluble phosphoric acid in the bicalcic phosphate does not occur.

V.—COST OF PRODUCTION.

In calculation of the cost of production per ton the following items are of importance :—

One electric horse-power produces in a year :

1'73 ton bicalcic phosphate of 36 per cent soluble phosphoric acid;

Or, 1'95 ton bicalcic phosphate of 32 per cent soluble phosphoric acid.

The percentage of soluble phosphoric acid will vary between 32 and 36 per cent, depending on the degree of dessication, &c. But under given circumstances a product of uniform composition will be obtained with a percentage of phosphoric acid from 32 to 36 per cent; 95 per cent of the total phosphoric acid will always be soluble by citrate.

The cost for chemicals is small, as they are regenerated.

As a by-product will be obtained about $\frac{1}{3}$ ton of very good lime for every ton of bicalcic phosphate.

The capital needed amounts to something about \$65 per electric horse-power used in the fabrication when a plant of at least 2,000 electric horse-powers is supposed. In manufacture on a larger scale the capital needed will be comparatively smaller. In this calculation it is supposed that the electric power is hired, and consequently the cost for the electric power plant is not included.

VI.—THE SUPERIOR ADVANTAGES OF THE ELECTROLYTIC METHOD.

The merits of the electrolytic method are as follows :—

(a.) It admits of the use of cheap low-percentage raw phosphate, not suitable for the superphosphate industry.

(b.) By it a phosphate containing about 34 per cent of soluble phosphoric acid is obtained, even from low percentage raw material.

(c.) Freightage for a given quantity of phosphoric acid in the finished article is only about half that in the case of ordinary superphosphate.

(d.) Retrogradation of soluble phosphoric acid when stored does not occur.

(e.) The raw phosphate need not be reduced to a finely powdered state.

(f.) Bicalcic phosphate can be employed as a fertilizer on all kinds of soil, even on sandy and boggy land, where superphosphate is out of the question.

WILLIAM PALMAER,

Director of the Electrochemical Laboratory.

TECHNICAL COLLEGE, STOCKHOLM, February 16, 1904.

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List of the patents of W. Palmaer (electrolytic method of producing manure from raw phosphates) :—

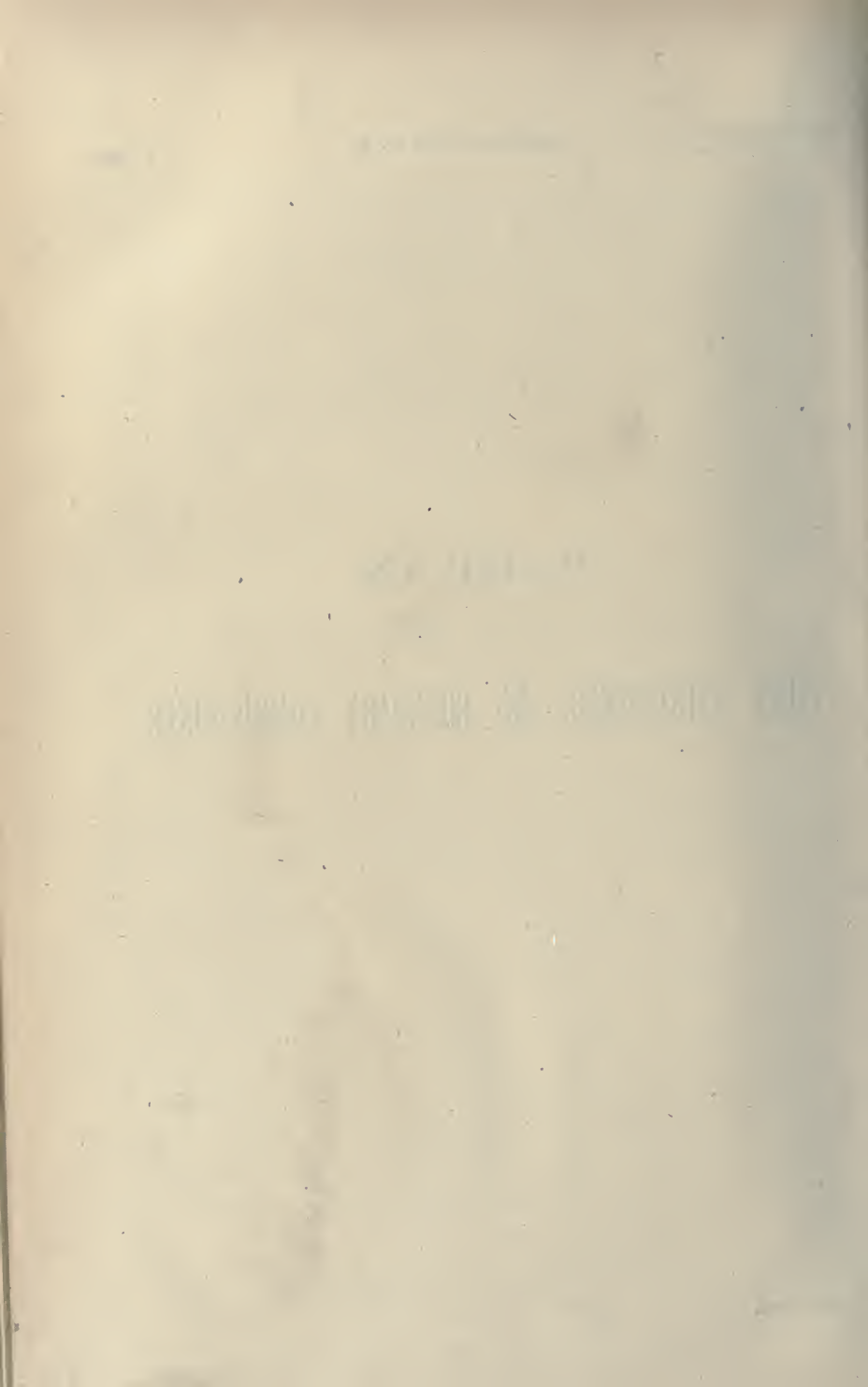
| | | | | |
|----------------|------|-----------|-------------------|----------------------------------|
| Canada, | —No. | 73,657, | issued | Nov. 5, 1901. |
| " | " | 103,548, | application filed | Jan. 3, 1903. |
| Sweden, | " | 12,010, | issued | Jan. 31, 1901. |
| " | " | 15,755, | " | April 30, 1903. |
| Norway, | " | 9,621, | " | June 24, 1901. |
| " | " | 11,804, | " | April 27, 1903. |
| Finland, | " | 1,436, | " | Feb. 28, 1901. |
| " | " | 1,951, | " | March 31, 1903. |
| Germany, | " | 146,060, | " | Aug. 25, 1903. |
| " | " | P. 14,367 | IV.-16, | application filed Dec. 30, 1902. |
| France, | " | 304,394, | issued | Jan. 9, 1901. |
| " | " | 326,917, | " | March 9, 1903. |
| Belgium, | " | 166,712, | " | Nov. 29, 1902. |
| Austria, | " | 15,694, | " | Feb. 4, 1904. |
| Italy, | " | 209, | vol. 182, | Feb. 11, 1904. |
| United States, | " | 707,886, | issued | Aug. 26, 1902. |
| " | " | 748,523, | " | Dec. 29, 1903. |

The first of these is the fact that the United States is a young nation. It is only about 150 years old, and its history is therefore still in the making. The second is the fact that the United States is a large nation. It covers a vast area of land, and its population is growing rapidly. The third is the fact that the United States is a diverse nation. It is made up of many different peoples, each with its own customs and traditions. The fourth is the fact that the United States is a free nation. Its people enjoy the rights of free speech, free press, and free assembly. The fifth is the fact that the United States is a powerful nation. It has a strong military and a large economy. The sixth is the fact that the United States is a peaceful nation. It has never been at war with another country since 1898. The seventh is the fact that the United States is a democratic nation. Its people elect their representatives to Congress and the President. The eighth is the fact that the United States is a nation of laws. Its people are bound by the same laws, and the government is bound by the Constitution. The ninth is the fact that the United States is a nation of progress. It has made great advances in science, technology, and industry. The tenth is the fact that the United States is a nation of hope. Its people believe in a better future for themselves and for their children.

The history of the United States is a story of growth and progress. It is a story of a nation that has overcome many challenges and has emerged as a world power. It is a story of a nation that has made great contributions to the world and has inspired people everywhere. The history of the United States is a story of a nation that is still in the making, and it is a story that we can all be proud of.

PART IX

CHIEF ASTRONOMER AND BOUNDARY COMMISSIONER



REPORT OF THE CHIEF ASTRONOMER AND BOUNDARY COMMISSIONER.

DEPARTMENT OF THE INTERIOR,
OFFICE OF CHIEF ASTRONOMER,
OTTAWA, November 11, 1904.

JAS. A. SMART, Esq.,
Deputy Minister of Interior,
Ottawa.

SIR,—I have the honour to submit the following report upon the operations of the Astronomical Branch during the past year.

The astronomical work proper has comprised hitherto the determination of geographical positions chiefly. The reduction of the observations taken in the field is made by the computers in the office. Some few magnetic and gravity observations have been taken also, but not in sufficient number to form an important feature of the work. Time is regularly determined by observation, and a limited distribution of it in the Langevin Block and this building has been carried on. The work in the office comprises, besides the astronomical computations, a large amount of work necessitated by the International Boundary demarcations, for which I hold the office of commissioner.

The correspondence during the year, from June 30, 1903, to June 30, 1904, was:

Letters received. 881

Letters sent. 1,096

The proper development of the astronomical work is hindered by the want of a proper building for the installation of instruments, with which is associated a lack of convenience for effective supervision of the work.

The new observatory, when completed, will overcome these difficulties. The building, which will, it is expected, be ready for occupation in a few months, will afford office accommodation for the astronomical staff and that of the International Boundary Surveys. In the dome, the fifteen-inch equatorial telescope has just been erected. The installation of the clocks and of numerous minor instruments will shortly be made. Provision for meridian instruments has not yet been made. These call for a small separate building, the immediate erection of which is demanded, for the determination of the time is the essential prerequisite to all astronomical work.

A feature worthy of mention of the future work of the observatory is the transmission of accurate time to the parliament and department buildings in the city. For this object an appropriation was made by parliament at its last session. It is proposed to distribute the time by electricity, with a master-clock situated in the observatory, and a clock synchronized by this in each of the buildings where time is to be furnished. These secondary clocks will each drive by electricity as many dials as are desired.

A small number of dials, operated by a system of this kind, has been, as already mentioned, in operation for some time. A brief description of the system may not be out of place here.

In the basement of the Supreme Court Building are set up two clocks, one regulated to sidereal and one to mean time.

The sidereal clock is connected by wire with a chronograph placed in the transit shed on Cliff street, alongside the transit instrument. This enables star transits to

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be recorded upon the chronograph, and thereby the error of the sidereal clock to be determined.

The mean-time and sidereal clocks are both connected by wire with the Langevin Block and this building.

Through the wires an impulse is given at each beat of the mean-time pendulum to the pendulums of two clocks, one in each of the buildings mentioned. These impulses force the pendulums to beat synchronously with the master-clock. The system by which this is effected is the invention of the late Professor A. Cornu, and the mechanism in use, including the master and the two controlled clocks, was made by Borrei, of Paris. Each controlled clock carries a bar magnet at the lower end of its pendulum. This magnet passes, when the pendulum moves to the right through a solenoid which carries the controlling current. When the pendulum swings to the left, the magnet passes through a copper cylinder, which has the purpose of damping the oscillations, and thereby rendering the controlling impulse paramount over the natural period of the pendulum.

The two controlled clocks each drive, by independent circuits, a number of dials operated each minute by an electromagnet.

As has been stated, the sidereal clock is connected also by wire with this building. To avoid multiplicity of wires through the city, the same wires as those carrying the synchronizing current from the mean-time clock are used to carry the beat of the sidereal clock. This is effected without confusion of signals by the use of a 'diplex' arrangement. The wires here come to a switchboard, which is provided with an ammeter for testing the strength of the currents, and with a Morse recorder, by which the beats of the two clocks can be recorded on the tape, and thereby a comparison made.

On the switchboard there is also a switch by means of which a current can be sent in either direction to regulate the mean-time master-clock in the basement of the Supreme Court building. This clock is provided with a permanent magnet on the pendulum, which swings with it over an electromagnet placed below. The passage of a current in a direction to make the electromagnet attract the permanent magnet accelerates the pendulum; if in the opposite direction, retards it.

Provision is also made for the receipt of an hourly signal from the clock in the Langevin Block.

This apparatus enables all the operations to be conducted in the office, except the observations themselves, and thereby obviates as much as possible the inconvenience of having observing station, clock room and office so far apart. The observer takes his observations at night, brings his chronograph record sheet to the office in the morning, and there works out his observations. This gives the error of the sidereal clock. A comparison is then made by means of the switchboard between the sidereal and the mean-time clock. If the mean-time clock is found to be in error, the small correction necessary is made by turning the switch to the right or left.

This service was put in experimentally. It has proved generally satisfactory, though it will receive certain modifications when the completion of the new building renders possible a more comprehensive scheme.

The field astronomical work of the determination of geographical positions was inaugurated by the Department of the Interior in connection with the surveys of Dominion Lands some thirty years ago. In the extension over the wide stretches of the north-western plains of the initial meridians, base lines, &c., of the Dominion Lands Survey system, observations for latitude were made by the writer and others, for the purpose of checking the long distances measured with the chain. Checks in longitude were not attempted, for the reason that the absence of telegraphic communication in those days rendered precise determinations impossible.

In 1885 the survey of the railway belt in British Columbia called for the determination of a number of points upon which the rectangular Dominion Lands system might be framed. The telegraph was at that time available, connecting Seattle, the longitude of which had been determined by the United States Coast and Geodetic Sur-

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vey, with points along the western end of the Canadian Pacific Railway, then under construction. The use of this connection for determining certain longitudes in British Columbia marks the initiation of the systematic determination of geographical positions in the Dominion.

The history of the subsequent extension of the latitudes and telegraphic longitudes into the North-west Territory and Manitoba, and, after an interval of several years, into the provinces of Ontario and Quebec, need not be detailed here.

Thanks are due to the telegraph companies, Canadian Pacific Railway, Great North-western, Canada Atlantic and Grand Trunk, for their co-operation in this work by affording free use of their lines for the exchanges of time, and to the officials of the companies for their cordial assistance in carrying out the arrangements.

A list of results from 1885 to date is annexed to this report, with a description of the stations observed at. (Appendix 1.) A full report on these determinations, with description of methods will be made at a later date.

The greater number of stations named in the list have been observed for cartographical purposes, several of them at the request of other departments of the public service. The absence of a general survey of Canada makes such determinations necessary for accurate map-making.

In 1892, the government of Canada co-operated with the Imperial government in a determination of the longitude of Montreal direct from Greenwich, which was carried out under the direction of the Astronomer Royal. The assistance given by this government had been asked for by the Royal Society of Canada, who in their memorial pressed the need of the work from a marine point of view especially, in the interests of shipping, pointing out its imperial and international importance in that respect.

In the summer of 1902, as the new Pacific cable was approaching completion, I pointed out to the Minister that an opportunity would thereby be afforded to extend our chain of longitudes from Vancouver (which had been connected with Ottawa and Montreal in 1896) across the Pacific to Australia and New Zealand, and that the value to shipping of accurate positions on the Pacific would be even greater than on the Atlantic, while the completion of the first longitude circuit of the globe would be itself a notable achievement, which would be to the credit of Canada.

The Minister having authorized the work, it was placed in charge of Dr. Klotz, who had taken part as an observer in the Greenwich-Montreal determination of 1892. With him on this work was associated Mr. Werry, of this office, as the other observer, who occupied alternate stations with Dr. Klotz. The work was begun early in 1903. A preliminary report by Dr. Klotz is appended. (Appendix 2.) A full report is in preparation.

The work of the re-survey and monumenting of the international boundary line between the state of New York and the province of Quebec was completed in 1902 and 1903, the operations of the latter year comprising certain astronomical observations by Mr. C. A. Bigger, of this office. The complete report of these operations is appended. (Appendix 3.) The expense was borne jointly by the Dominion of Canada and the state of New York.

At the present time I have the honour of holding the office of commissioner on behalf of His Majesty for the re-survey and demarcation of the international boundary line between Canada and the United States from Lake Superior to the Pacific Ocean, and for the demarcation of the Canada-Alaska boundary line, under the Award of the London Tribunal of 1903. For the latter the United States Commissioner is Mr. O. H. Tittmann, Superintendent of the United States Coast and Geodetic Survey. For the former there are two commissioners for the United States, Mr. Tittmann and Dr. Walcott, Director of the United States Geological Survey.

The field operations on the Lake Superior-Pacific line have been confined this season, as they were last, to the portion west of the Rocky mountains. They are being carried on by United States and Canadian survey parties, the latter under the direc-

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tion of Mr. J. J. McArthur, of this office. The line is being marked with monuments of aluminum bronze.

The demarcation of the Alaska line, likewise carried on as a joint survey, has been proceeded with in the region about the head of Lynn canal, and at the crossing of the Stikine river.

In the former locality, two Canadian parties have operated under the direction of Mr. C. A. Bigger, of this office, and in the latter, one under Mr. Geo. White-Frazer, D.T.S. The line is being defined by bronze monuments.

Accompanied by the United States commissioner, I visited, this summer, the head of Portland canal. Here we agreed upon the point intended by the Tribunal as the point 'C' mentioned in the award, which is the initial point of the land boundary. This point we marked with a bronze monument.

I have the honour to be, sir, your obedient servant,

W. F. KING,
Chief Astronomer and Commissioner.

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APPENDIX I TO THE CHIEF ASTRONOMER'S REPORT OF 1904.

ASTRONOMICAL POSITIONS.

| Place. | Year. | Latitude. | Longitude. | Longitude. |
|--|----------------|-------------|-------------|---------------|
| | | ° ' " | h. m. s. | ° ' " |
| Victoria..... | 1885..... | 48 25 31.38 | 8 13 26.8 | 123 21 42.0 |
| Kamloops..... | 1886..... | 50 40 39.02 | 8 01 18.8 | 120 19 42.0 |
| Port Moody..... | 1885..... | 49 16 29.55 | 8 11 26.7 | 122 51 40.5 |
| Revelstoke..... | 1886..... | 51 00 11.25 | 7 52 49.8 | 118 12 27.0 |
| Field..... | 1886..... | 51 23 38.58 | 7 45 59.8 | 116 29 57.0 |
| Calgary..... | 1886..... | 51 02 39.21 | 7 36 15.1 | 114 03 46.5 |
| Winnipeg (1888)..... | 1896..... | 49 53 51.53 | 6 28 33.902 | 97 08 28.530 |
| Wapella..... | 1887..... | 50 15 45.79 | 6 47 53.1 | 101 58 16.5 |
| Port Arthur..... | 1887..... | 48 26 01.66 | 5 56 51.6 | 89 12 54.0 |
| Kalmar..... | 1887..... | 49 46 21.96 | 6 19 51.2 | 94 57 48.0 |
| Edmonton..... | 1888..... | 53 31 58.81 | 7 34 01.8 | 113 30 27.0 |
| Onion Lake..... | 1888..... | 53 43 07.73 | 7 20 00.7 | 110 00 10.5 |
| Mattawa..... | 1890..... | | 5 14 49.0 | 78 42 15.0 |
| Ottawa..... | 1896..... | 45 25 21.78 | 5 02 50.022 | 75 42 30.330 |
| Port Stanley..... | 1896..... | 42 39 52.73 | 5 24 50.9 | 81 12 43.5 |
| *N.W. Angle of Lake of the Woods (meridian of)..... | 1897..... | | 6 20 36.5 | 95 09 07.5 |
| *4th Mer. 14th Corr. Line..... | 1888..... | 53 42 54.27 | 7 20 01.0 | 110 00 15.0 |
| *5th Mer. 14th Base..... | 1888..... | | 7 36 00.0 | 114 00 00.0 |
| *5th Mer. S. 13-14 T. 24..... | 1886..... | 51 03 10.43 | 7 36 00.1 | 114 00 01.5 |
| †Montreal U. S. C. & G. S. Report..... | 1897..... | | 4 54 18.634 | 73 34 39.510 |
| *Principal Mer. 4th Base..... | 1872-1896..... | | 6 29 50.0 | 97 27 30.0 |
| *2nd Mer. S. 13-14 T. 15..... | 1887..... | | 6 48 01.1 | 102 00 16.5 |
| Chalk River..... | 1900..... | 46 00 52.32 | 5 09 48.6 | 77 27 05.0 |
| Canoe Lake..... | 1900..... | 45 34 41.55 | 5 14 54.8 | 78 43 42.0 |
| Wilno..... | 1900..... | 45 30 54.46 | 5 10 14.8 | 77 33 42.0 |
| Rose Point..... | 1900..... | 45 19 00.73 | 5 20 09.9 | 80 02 28.5 |
| Owen Sound..... | 1900..... | 44 33 56.42 | 5 23 46.7 | 80 56 40.5 |
| Rayside..... | 1900..... | 46 32 47.45 | 5 24 22.6 | 81 05 39.0 |
| Vancouver..... | 1900..... | 49 17 48.0 | 8 12 28.368 | 123 07 05.520 |
| * West Lynne applying connection (1872-74) with Winnipeg..... | | | 6 28 56.8 | 97 14 12.0 |
| * West Lynne by Boundary Survey Report 1872-1874..... | | | 6 28 55.4 | 97 13 51.0 |
| White River..... | 1902..... | 48 35 11.53 | 5 41 07.6 | 85 16 54.0 |
| Midway..... | 1901..... | 49 00 40.5 | 7 55 09.0 | 118 47 15.0 |
| Three Rivers..... | 1902..... | 46 20 37.09 | 4 50 08.6 | 72 32 09.0 |
| Portneuf..... | 1903..... | 46 42 33.44 | 4 47 34.1 | 71 53 31.5 |
| Woodstock..... | 1903..... | 43 08 07.62 | 5 23 04.6 | 80 46 09.0 |
| Covey Hill..... | 1903..... | 45 01 13.35 | | |
| †Cobourg..... | 1904..... | 43 57 51.4 | 5 12 39.5 | 78 09 52.5 |
| Harriston..... | 1904..... | 43 54 52.40 | 5 23 29.2 | 80 52 18.0 |
| Beeton..... | 1904..... | 44 04 47.7 | 5 19 07.6 | 79 46 54.0 |
| Guelph..... | 1904..... | 43 32 43.7 | 5 21 00.6 | 80 15 09.0 |
| Orillia..... | 1904..... | 44 36 28.5 | 5 17 40.1 | 79 25 01.5 |

* Not directly observed. See "Local Positions of Astronomical Stations."

† From Mr. Schott's adjustment of the longitude "net" of the Coast and Geodetic Survey.

‡ The longitude is taken from Transactions of the Royal Society of Canada, 1888.

LOCAL POSITIONS OF ASTRONOMICAL STATIONS.

Victoria, 1885.—The astronomical station was situated 7 feet 5 inches east of Broad street and 17 feet 6 inches south of View street, being in the northwest corner of the garden of the Driard hotel.

P.S.—Subsequently the hotel was extended to Broad street.

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Kamloops, 1885.—The astronomical station was on the intersection of the middle lines of Victoria avenue and Fifth street of the new town site.

Port Moody, 1885.—The astronomical station was 80 feet south of the centre line of the Canadian Pacific Railway, 28 feet 10 inches southwest from a lot-stake marked L. 18, and 25 feet 6 inches west from the centre of the plank road leading across the railway to the Elgin hotel.

Revelstoke, 1886.—The astronomical station was 134 feet 10 inches to the north of the centre line of the Canadian Pacific Railway, and 128 feet 8 inches on a course north $37^{\circ} 29'$ east from Canadian Pacific Railway traverse station No. 1,064 of the year 1886.

Field, 1886.—The astronomical station was situated on the north side of the Canadian Pacific Railway track near and west of the Canadian Pacific Railway hotel then building. It was distant 68 feet 8 inches from Canadian Pacific Railway traverse station No. 93 in the year 1886.

Calgary, 1886.—The astronomical station was 1 chain 56 links south of the centre line of the main line of the Canadian Pacific Railway, and 2 chains, 49 links north of the northeast corner of town lot No. 11 in block 69. The meridian through the observatory passed $37\frac{1}{2}$ links east of said northeast corner of lot 11.

Winnipeg, 1888.—The astronomical station (of 1888 and subsequently occupied in 1896) was situated on the Dominion government lot lying between Princess and King streets, and east of Notre Dame street.

Wapella, 1887.—The position of the astronomical station was on a knoll south of the Canadian Pacific Railway and 5 chains, 85 links southwesterly from the southwest corner of the railway station. It was definitely fixed by triangulation from the Second Meridian of the Dominion Lands survey.

Port Arthur, 1887.—The astronomical station was situated on vacant ground to the north of Arthur street, and distant 1 chain, 34 links from the intersection of the south side of Arthur street with the west side of South Water street, and 86 links from and at right angles to the west rail of the Canadian Pacific Railway main line. Due south of station $81\frac{1}{2}$ links a hole was drilled and filled with lead as a future reference point.

Kalmar, 1887.—The position of astronomical station was on the sloping hillside, west of the station, since rebuilt, and on the north side of the Canadian Pacific Railway due north 88 feet $5\frac{1}{2}$ inches from the centre line thereof.

Edmonton, 1888.—Here it was intended to occupy the Dominion Lands Survey latitude station (King) of 1877, but that being impracticable on account of excavation made there, the situation was established (observatory building) 70.2 feet southeast thereof, the azimuth being $120^{\circ} .07$.

Onion Lake, 1888.—The astronomical station was situated 4 chains in azimuth $95^{\circ} .81$ from the point on survey line of Fourth Meridian, 19.685 chains north of the southeast corner of township 55, and 3 feet south of the government telegraph line (the wire running over the observatory).

Ottawa, 1896.—Observatory at the northerly end of lot No. 7 on the north side of Cliff street, and at the edge of the perpendicular cliff overlooking the Ottawa river.

Port Stanley, 1896.—The position of the astronomical station was on the property

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known formerly as a 'Ship-yard' lying along the east side of Kettle creek, and to the west side of lots 1, 2 and 3 fronting on the west side of Main street.

Northwest Angle, 1897.—By a special survey in 1897 a meridian was run north from the international boundary monument at the Northwest angle of the Lake of the Woods, and a traverse made from the intersection of that meridian with the Canadian Pacific Railway, along the railway eastward to Kalmar where a connection was made between the traverse line and the position of the Kalmar astronomical station of 1887. The latter was found to be 45'310 seconds east of that meridian.

Fourth Meridian, 1888.—The longitude of this meridian was determined for the 14th Correction Line by referring it to the astronomical station, Onion lake, situate about 20 chains to the north of the Correction Line. By linear measure the Fourth Meridian, as found on the ground, was 0'291 second (of time) west of the observatory.

Fifth Meridian, 1886.—Connecting Calgary with the Fifth Meridian. The position of this meridian east of Calgary was determined by a triangulation from the astronomical station at Calgary.

Connection of Edmonton with Fifth Meridian.—The 14th Base Line (Aldous, 1879) intersects the meridian of astronomical station (King, 1877) at Edmonton at 298'45 chains west of the northeast corner of township 52, range 24, west of the Fourth Meridian (old system). The Fifth Meridian was placed (Aldous) at 452'185 chains west of the northeast corner of township 52, range 27, after correction for sea level for measurement from Fourth to Fifth Meridian.

Principal Meridian at Fourth Base, 1872-1896.—In connection with the international boundary survey (1872-4) of the 49th parallel, the telegraphic determination of the longitude of West Lynne was made by exchange of signals with the Chicago Observatory. Major Anderson and Mr. Lindsay Russell were the observers at West Lynne and Chicago respectively. Stations were not exchanged nor observations for personal equation taken. By linear measure along the boundary westward from West Lynne to the Principal Meridian, the longitude of the latter at that point was found, and subsequently by a careful re-running (in azimuth) of the meridian, the longitude of the iron bar on the Fourth Base Line. From this bar a triangulation (1874) was carried to Winnipeg to the flag pole on the north gate of Fort Garry, and this, in 1887, was connected by triangulation with a temporary observatory near the Canadian Pacific Railway station, and this in turn with the observatory of 1888 and subsequent years.

Second Meridian, 1887.—A triangulation was made in 1887 between the Second Meridian as defined on the ground and the astronomical station at Wapella, and the longitude of the former deduced from the latter.

Chalk River, 1900.—The astronomical station was on a slight knoll on the sandy expanse south of the Canadian Pacific Railway track and distant 1885'7 feet on a course south 56° 15' east from the original post on the north side of the road allowance between concessions 8 and 9 and between lots 1 and 2 in the township of Buchanan; it is also distant 457'6 feet due south from the centre line of the main line of the Canadian Pacific Railway.

It may be mentioned that the old or first Canadian Pacific Railway station was considerably east (several miles) of the present one.

Canoe Lake, 1900.—The astronomical station was 371 feet due south of the centre line of the Ottawa and Parry Sound Railway; 526 feet due west from the division line between lots Nos. 20 and 21 in the 14th concession in the township of Peck.

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Wilno, 1900.—The astronomical station was 766 feet due north of the centre line of the Ottawa and Parry Sound Railway and 653 feet on a course N. $73^{\circ} 38'$ W. from the intersection of the lines separating the 4th and 5th concessions of the townships of Sherwood and Hagarty.

Rose Point, 1900.—The point of observation is on the north side of the railway track in the southeast corner of the garden of the Rose Point Hotel and 50 feet east of the road leading to the village of Parry Harbour. It is distant 196 feet at right angles to the township lot line running N. $20^{\circ} 51' 40''$ W. (Beatty) at the point distant along the lot line 693 feet from the centre line of the Ottawa and Parry Sound Railway.

Owen Sound, 1900.—The astronomical station was distant southwesterly 215'96 feet on the course, making an angle of $57^{\circ} 33'$ with the westerly side of Poulett street from the intersection of that side of Poulett street with the southerly side of Baker street.

Rayside, 1900.—The astronomical station was situated on the farm of John Carrière, on lot 3, concession 1, township of Rayside, and distant 605'8 feet west from the division line between lots 2 and 3, and 441'4 feet north of the centre line of the Canadian Pacific Railway.

Vancouver, 1900.—A permanent observatory was built on Brockton Point close to and southeast of the lighthouse.

White River, 1902.—The astronomical station was on the sandy ridge south of the railway station, and distant $98\frac{1}{2}$ feet due east of the centre line of the main track of the Canadian Pacific Railway, from the point distant 183 feet north along the track from the 'east switch,' where the White River railway division begins.

Covey Hill, 1903.—The astronomical station was situated on township lot 34 in range 1 of the township of Havelock; owned by Mr. John Waddell. The station was marked by an iron bolt in the solid rock, two feet below the surface, over which a cairn of stones was erected. The azimuth to monument 684 on the international boundary is $135^{\circ} 07'$, and the distance 7,716'4 feet. It is on the highest part of Covey Hill.

Woodstock, 1903.—The astronomical station was situated within the city limits of Woodstock, on land owned by the corporation, on the north side of Admiral street, 21 feet west of the produced westerly limit of Givins street. It was marked by a concrete pier.

Cobourg, 1904.—The astronomical station was situated 63 feet north of University avenue, 243 feet east of the east side of College street produced northerly, and 81 feet 6 inches due south of the centre of the dome of Faraday Hall.

Midway, 1901.—The astronomical station was situated about 100 feet south of the Canadian Pacific Railway station (dwelling and ticket office), and $607\frac{1}{2}$ feet in azimuth $255^{\circ} 37'$, from the point on the east side of Adams street, $15\frac{1}{2}$ feet south of the south side of Eleventh street.

Three Rivers, 1902.—Astronomical station at Station No. IX. of the St. Lawrence River Hydrographic Survey.

Portneuf, 1903.—The astronomical station was 21,667'11 feet in azimuth $298^{\circ} 40' 54''$ or N. $61^{\circ} 19' 05''$ W. from monument No. 31 of the St. Lawrence River Survey.

Harriston, 1904.—The astronomical station was 108 feet south of Queen street, and 148 feet east of Union street.

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Beeton, 1904.—The astronomical station was 100 feet west of the west side of Patterson street and 78 feet north of the north side of Main street. Patterson street is a road allowance between lots 10 and 11. Main street is a road allowance between concessions 7 and 8 in the township of Tecumseth.

Guelph, 1904.—The astronomical station was 150 feet west of Norfolk street and 85 feet north of Paisley street, Nelson crescent.

Orillia, 1904.—The astronomical station was $174\frac{1}{2}$ feet south of Mississauga street, and $87\frac{1}{2}$ feet east of Peter street.

APPENDIX 2 TO THE CHIEF ASTRONOMER'S REPORT FOR 1904.

REPORT OF OTTO J. KLOTZ, LL.D.

OTTAWA, August 2, 1904.

W. F. KING, Esq., LL.D.,
Chief Astronomer.

SIR,—I have the honour to submit the following preliminary and summary report on 'Transpacific Longitudes' carried out under my charge. The technical and full report follows later.

With me in the work was associated Mr. F. W. O. Werry, B.A., as observer, and he occupied Fanning and Norfolk islands. Mr. F. A. McDiarmid, B.A., attended to the clock exchange at Bamfield creek, Vancouver island, with the observatory at Vancouver and the one at Fanning. I occupied Vancouver, Suva, Fiji; Southport, Queensland; and Doubtless Bay, New Zealand, besides the observatories at Brisbane, Sydney and Wellington for personal equation.

I have the honour to be, sir,

Your obedient servant,

(Sgd.) OTTO J. KLOTZ.

On December 31, 1900, articles of contract were made by Her Majesty's government, Canada, New South Wales, Victoria, New Zealand and Queensland on the one part, and the Telegraph Construction and Maintenance Company on the other, for the construction and laying of the Pacific cable.

The contract called for the completion of the whole cable on or before December 31, 1902. The cable was finished two months earlier, and after undergoing the required test of a month, entered upon its commercial career on December 8, 1902.

Thus was the project, that had been advocated with persistence from some quarters for a quarter of a century, made an accomplished fact. The missing link, of about 8,000 miles across the Pacific between Canada and Australia, in the world's metallic girdle was now supplied.

Before the cable was laid a survey was made of the route, and the character of the ocean bed examined.

From the survey the number of miles (nautical) of cable required for the different sections was as follows:—

| | |
|--|-------|
| From Vancouver island to Fanning island. | 3,654 |
| “ Fanning island to Suva, Fiji. | 2,181 |
| “ Suva to Norfolk island. | 1,019 |
| “ Norfolk to Queensland (Moreton Bay). | 906 |
| “ Norfolk to New Zealand. | 513 |

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The first section of the cable is about a thousand miles longer than any that had been laid before. This necessitated a considerable increase in copper for the conductor and in gutta percha for the dielectric. The working speed of a submarine telegraph cable depends on, and is inversely proportional to the product of the total resistance of the conductor multiplied by the total electro-static capacity of the core, so that, other things being equal, the speed varies inversely as the square of the length of the cable. In the long section there were used 600 pounds of copper and 340 pounds of gutta percha per nautical mile. On the Fanning-Suva section 220 pounds of copper and 180 pounds of gutta percha, and on the remaining three sections the copper and dielectric were in equal proportions of 130 pounds each.

In the neighbourhood of Fiji at a depth of 2,500 fathoms, a temperature of 34° 1 Fahrenheit was noted, being the lowest temperature taken during the survey. There is very little difference in the temperature of the ocean at great depths, say below 3,000 fathoms, over a great extent of the earth's surface, the temperature being only a few degrees above the freezing point, or 32° Fahrenheit. The greatest depth, 3,070 fathoms, about three and a half miles, was found on the Fiji-Fanning section, where the bottom specimens consisted principally of radiolarian ooze. This ooze is found at the greatest depths, and was obtained by the 'Challenger's' deepest sounding in 4,475 fathoms. The United States steamer 'Nero' sounded in 5,269 fathoms, 6 miles (this last being the deepest sounding recorded in the ocean), and the material brought from the bottom was radiolarian ooze.

Of the 597 samples of sea bottom obtained on the Pacific cable survey, 497 were such that they could be divided into distinct types of deposits. It was found that

| | | |
|-----|---------------------|------------------------|
| 294 | samples referred to | globigerina ooze. |
| 65 | " | " red clay. |
| 43 | " | " radiolarian ooze. |
| 45 | " | " coral mud or sand. |
| 27 | " | " pteropod ooze. |
| 12 | " | " blue or green muds. |
| 11 | " | " organic mud or clay. |

The pressure at a depth of 3,000 fathoms, in which a considerable portion of the Pacific cable is laid, is about four tons to the square inch. When the cable is being laid at such depths, it will be approximately twenty miles astern of the ship before it touches the bottom.

Deep sea cables last longer in the tropics than in the northern oceans. The reason is to be found in the fact that in the tropics marine life, from which globigerina ooze is derived, is more abundant than in the more northerly or southerly waters. It is the sun and the warmed surface water that call into life these countless globigerina, which live for a short space, then die and fall to the bottom like dust, making such a good bed for the cable to rest in. In the arctic currents, where the surface is cold the water does not teem with life in the same way as it does in the tropics, and consequently there is less deposit on the bottom of the ocean.

A submarine cable consists, first, of a core, which comprises the conductor, made of a strand of copper wires, or of a central heavy wire surrounded by copper strips as in the Pacific cable, and the insulating covering, generally made of gutta percha, occasionally of India rubber, to prevent the escape of electricity. As far as cabling is concerned, this is really all that is necessary, an insulated conductor. This, however, would not, in the first place, be sufficiently heavy to lay in the ocean, and secondly, would be too easily injured and destroyed by the many vicissitudes to which it would be subjected. For this reason a protection in the form of a sheathing of iron or steel wires surrounds the core; the nature, size and weight of the sheathing being dependent upon the depth of the water and kind of ground over which it has to be laid. The deep sea section, being the best protected from all disturbing influences outside of displacement of the earth's crust by earthquakes or volcanic action, is naturally the one of smallest dimensions; and for the shore end, which is exposed to the action

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of the waves, to driftwood, to the grinding of ice in the more northerly latitudes, and to the danger of anchorage, especially of fishing boats, the sheathing must be very heavy. So that while the deep sea cable is somewhat less than an inch in diameter, that for the shore ends is nearly $2\frac{1}{2}$ inches in diameter. The action of the waves is limited to a depth of only about 13 fathoms, so that their influence on the cable, manifested by wear and chafing, is confined to the shore end.

The Pacific cable is equipped with the most modern apparatus at the various stations, and the cable is worked duplex, that is, messages are sent and received on the same cable at the same time.

Canada had carried longitude work from Greenwich across the Atlantic and thence to Vancouver. The completion of the British Pacific cable offered an opportunity for continuing the work across the Pacific in the interests of navigation and geography, besides tying for the first time longitudes brought eastward from Greenwich with those brought westward, making the first longitude girdle round the world.

In October, 1902, the Hon. Clifford Sifton, Minister of the Interior, authorized the carrying out of the Transpacific longitudes, and the Governors of the South Sea, Australia and New Zealand were respectively officially notified thereof.

In preparing the programme for carrying out the work, the climatic conditions of the various stations to be occupied were studied so that the most favourable times and seasons might be chosen. It was found that Suva, Fiji, was the governing factor, as it was by far the rainiest place of the series.

Equipment.—Each observer was provided with a Cooke & Son astronomic portable transit, each of 3 inches clear aperture, the one of 34 inches, the other 36 inches focal length. Each transit was provided with reversing apparatus. The transits of stars were observed over eleven threads in groups of three, five and three respectively. The eye-piece attachment carried a micrometer—one revolution about a minute of arc with thread parallel to the transit threads—for latitude work, and the whole attachment was necessarily movable through 90 degrees so that the movable or micrometer thread became horizontal. The recording of transits was made by means of a key on a Fauth barrel chronograph. Each observer was provided with two sidereal clocks, or rather box chronometers, one being a spare in case of accident. There were besides dry cells, switch-boards and minor accessories to complete the outfit.

I carried, too, a half-second pendulum apparatus and a Tesdorpf magnetic instrument, the latter similar to the ones furnished to Drygalski of the *Gauss* on his Antarctic expedition.

Itinerary.—Mr. Werry left Ottawa on February 27, 1903, and proceeded to San Francisco, whence he sailed for Samoa, where he took the northbound steamer for Fanning Island. The southbound steamers in passing Fanning do not call there. In the latter part of March, Mr. McDiarmid and I proceeded to Bamfield Creek, Vancouver Island, the eastern terminus of the Pacific cable. After installing the sidereal clock and its connection with the cable, I returned to the Vancouver Observatory to begin observations. Bamfield Creek, where no observations were taken, was simply used as a clock exchange station for making comparison between the Fanning and Vancouver clocks.

By the end of April a satisfactory number of observations had been obtained at Fanning and at Vancouver, and the first link of the Transpacific longitudes completed.

I took passage on the Canadian-Australian steamer *Miowéra* and sailed on May 2 for Suva, Fiji. We called en route at Honolulu. Here were met the two American astronomers, Mr. Edwin Smith and Mr. F. Morse, who were engaged in the determination of the difference of longitude—San Francisco-Honolulu. Suva was reached May 20, and immediate steps were taken for the erection of the pier and observatory. The Fanning-Suva longitude was completed on June 24. It may be stated that as Suva is just west of the 180th meridian, and Fanning east of it, the dates for the observa-

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tions of the same night differ by a day. Mr. Werry left Fanning on June 27 for Norfolk Island, some 3,000 miles distant. This necessitated a rather circuitous route of about 7,000 miles for lack of suitable steamer connections. He had to return to Honolulu, thence to Samoa, Auckland, New Zealand, Sydney, Australia; and finally to his destination, which he reached in the beginning of August, occupying about six weeks to reach the cable station at Norfolk Island. During this interval I made pendulum and magnetic observations at Suva, and also paid a visit, on invitation of Roko Kandavu, grandson of the great cannibal king, Cakobau, and present ruler, at the old Fijian capitol on the small island of Bau, some 20 miles from Suva.

About a month was occupied in determining the difference of longitude, Suva-Norfolk. On September 7 I sailed on the *Aorangi* for Brisbane, where we arrived on Saturday, the 12th. On the following Monday I proceeded by rail with the astronomic outfit of many cases to Southport, the cable station, fifty miles south of Brisbane.

Mr. H. C. Russell, government astronomer at Sydney for New South Wales, hearing of my arrival, immediately wired his hearty co-operation in connecting Sydney with Southport. Similar co-operation was readily granted by Mr. A. A. Spowers, chief surveyor for Queensland, with the Brisbane observatory in charge of Mr. T. D. Fraser. By September 25 the pier and observatory were built and observations begun. Southport formed a unique station, for nightly clock exchanges were had in succession with Brisbane, with Norfolk and with Sydney, at each of which time observations were being taken. It was on Sunday night, September 27, that the first satisfactory clock exchange was had with Sydney, and so this night may be considered as the one when for the first time longitude from the west clasped hands with longitude from the east, and the first astronomic girdle of the world was completed.

By October 16 the last link, Norfolk-Southport, of the direct Transpacific longitude was completed. Mr. T. D. Fraser and I observed for personal equation at Southport and at the Brisbane observatory. Magnetic observations at Southport were also taken. On November 3 I arrived at Sydney, and after observing for personal equation, with the two observers, Mr. H. A. Lenehan, acting government astronomer, and Mr. Raymond, left on November 7 for Wellington, New Zealand. Here I was met by Sir James Hector, the former director of the observatory, and by Mr. Thos. King, who now has charge of the time observations. The premier, the Honourable R. J. Seddon, extended every facility the government could offer to further the success of the work. Observations were made for personal equation by Mr. King and myself. After making the necessary arrangements for subsequent clock exchange signals at the observatory, I left for the cable station at Doubtless Bay at the north end of New Zealand, going by rail to New Plymouth, thence by steamer to Onehunga, across the narrow isthmus by rail to Auckland, and thence by steamer to Mangonui, the most northerly port on the east coast. From there I had to drive over an execrable road some miles to the cable station. Here a pier and observatory were built similar to the ones at Suva and Southport. Longitude observations were begun on December 3 and finished on December 19. Before leaving this station a set of pendulum observations was obtained, and the magnetic elements were also determined.

Returning to Wellington, another set of personal equation observations was taken, and similarly in Sydney in January, 1904.

This completed the work of the Transpacific longitudes.

Before leaving Sydney, I delivered by request a lecture before the Royal Society of New South Wales on the longitude work undertaken by Canada. In the vote of thanks tendered after the lecture, great appreciation was expressed for the public spirit shown by Canada in carrying out the Transpacific longitude, and tying Australia and New Zealand to the work carried westward from Greenwich.

On the return home the opportunity was embraced of visiting en route the observatories at Melbourne, Adelaide, Cairo, Heidelberg, Munich, Leipzig, Kiel, Hamburg, Edinburgh and Greenwich.

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I wish here to express thanks for the hearty co-operation of the chief electrician of the Pacific cable and of the superintendents at all stations; of the superintendents, Mr. Hesketh, of the government telegraphs in Queensland; Mr. Young, for New South Wales, and Mr. John Logan, for New Zealand. Mr. G. A. Buzacott, deputy postmaster general of Queensland; Mr. J. Dalgarno for New South Wales, and Sir Joseph Ward, postmaster general of New Zealand, kindly placed the use of the respective telegraph lines at my disposal for the nightly clock exchanges.

At the Wellington observatory batteries and telegraph instruments had to be installed for the clock exchanges with Doubtless Bay. This was done by Mr. Buckley, government electrician, who also kindly attended every night during the campaign at the observatory to the exchange of signals.

In short, wherever and whenever any assistance was required it was readily and cheerfully extended, and the success of the work is in no small measure attributable thereto.

It may be remarked that the visits to and from the last-mentioned observatory may evoke a Gray's elegy, as it necessitated wandering along the sinuous paths of the old cemetery covering the hillside.

The immediate reasons for the first telegraphic connection in longitude between Australia and the prime meridian, Greenwich, were: (1) with a view to confirming the position of the eastern boundary of the colony (South Australia, 141°E.); (2) for obtaining the longitude of stations to be occupied for observing the transit of Venus in 1882.

To attain this end connection was made astronomically between Sydney-Melbourne-Adelaide-Port Darwin-Singapore. A connection was made, too, between Sydney and Wellington. All Australian and New Zealand longitudes at present rest on the position of Singapore as accepted in 1883, which then, quoting from the government report for 1886 of South Australia, 'had twice been telegraphically determined—first in 1871 by Dr. Oudemans, of Batavia, and Mr. Pogson, of Madras, and more recently, in 1882, by Commander Green, United States Hydrographic Department. For reasons given in the appendix, we agreed, after full consideration, to accept Commander Green's position of Flagstaff at Fort Canning, viz., $6^{\text{h}}.55^{\text{m}}.23^{\text{s}}.50^{\text{s}}$. Reducing this to Captain Darwin's observing station $+1^{\circ}51'$, makes the longitude of Captain Darwin's transit instrument $6^{\text{h}}.55^{\text{m}}.25^{\text{s}}.01^{\text{s}}$. The difference of longitude, Port Darwin-Singapore, determined by Captain Darwin and Mr. Baracchi, is $1^{\text{h}}.57^{\text{m}}.57^{\text{s}}.48^{\text{s}}$, making the longitude of Port Darwin $8^{\text{h}}.43^{\text{m}}.22^{\text{s}}.49^{\text{s}}$ E. of Greenwich.'

It may be remarked that at this time the Thomson recording siphon had not yet been introduced and that the clock exchanges between Port Darwin and Singapore over the cable were made by the use of the deflecting mirror, a method involving more or less uncertainty in noting by 'eye and ear' the movement of the mirror and the instant of time of its occurrence.

Singapore was dependent in position upon Madras, and it in turn on a not very strong chain of links with Greenwich. It may, therefore, be expected that the longitudes of Australia and New Zealand will suffer correction.

During 1894-96 the survey of the India Department carried out a fresh determination of the longitude of Madras *via* Greenwich-Potsdam-Teheran.

In the final report the longitudes from Greenwich carried both east and west to Australia will be more fully discussed.

To be accustomed to observing in the northern part of the northern hemisphere and thus suddenly transported to the southern hemisphere for the sphere of action, plays havoc with one's mental picture of the sky on a clear night.

Polaris that has done such good service these many years is far below the horizon. Vega, that bright orb, has left its accustomed place in Canada south of the zenith, and now describes a small arc across the northern horizon. The Great Bear has retired to his den to await our return from the southern trek. Even Orion and Sirius and Procyon have crossed our Zenith and joined the hosts to the north. However, for our

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loss of Polaris, Cassiopeia, Ursa Major, Draco and other northern friends we have been presented with effulgent and dazzling Canopus, only rivalled by Sirius, with bright Achernar and the pretty Southern Cross with its conspicuous 'pointers,' Alpha and Beta Centauri. The first of the latter is the nearest star to the earth, being distant only four light years, that is, light with a velocity of 186,000 miles a second would not quite get here in four years. The constellation of the Southern Cross is really not a conspicuous object in the sky, and many people living in the southern hemisphere cannot point it out, which can scarcely be said of the Great Bear in the northern hemisphere. The ancients did not recognize it as a separate constellation, but included it in the constellation of the Centaur. There is no bright star near the south pole to guide the surveyor or sailor or wanderer as our pole star does. Even the astronomer longs for polars to keep check on his azimuth. The 'coal sacks' or partly starless spots are conspicuous in the southern sky, appearing like small black clouds, in contradistinction to the fleecy Magellanic clouds hovering about Hydra.

Summer weather prevailed throughout the campaign, although Fiji was occupied in the dead of winter, which term or designation seems to a Canadian absurd when he is at the time melting in the tropical hothouse. Christmas was, for my first time, spent working under a summer sky. It is undoubtedly nice for people to pic-nic, have regattas and similar outdoor amusements on that day, but it is contrary to all traditions of Yuletide, and it is devoid of that sacredness of the hearth and family ties that our most severe northern clime calls forth, when the earth is bound fast in snow and ice only the more to quicken the warmth of hearts.

Contrary to expectation, there was less annoyance from beetles and insects while observing than is found in Canada. A light in the open at night with us attracts multitudes of moths and beetles, and one's patience is sometimes sorely tried to have an unexpected visitor stake out a homestead on the nose just at the critical moment of the transit of a star, or have a select party of moths taking a free ride on the chronograph and interfere with the recording pen. Of such tribulations the tropics spared us, although the music of the mosquito is not unknown. The observatories were too new to offer special inducements for a visit from centipedes or tarantulas. In Australia especially, the white ant is very destructive, and as most of the dwelling houses are built on posts and have no cellar, the posts are capped for protection with projecting sheet-iron, best compared with a large inverted pie-plate. This precaution was taken, too, with the observatories at Fiji, Queensland and New Zealand. When the ant gains access, it attacks the underside of the floor boards, and completely riddles and honeycombs the wood without, however, wholly piercing the board, so that some fine day one is measuring the distance from the floor to the ground, using the leg as measuring rod.

During the winter months at Fiji there is less rain than during the other seasons, yet it is decidedly wet, although the winter of 1903 was considered remarkably dry for Suva. Due to the mountainous character of the island and to the prevailing south-east trade winds, the southerly side of the island (Viti Levis) is far wetter than the opposite or northerly one. The former is clothed in dense vegetation and woods, while the latter is more open and covered with grass. The exasperating thing about the precipitation is that it is so fitful. Instead of pouring buckets for a given number of hours per day, it divides it, that is in the dry season, for in the wet season 'the Arab folds his tent and quietly steals away,' into very many and unequal divisions. Time and again at night the kaleidoscope would have a programme something like this:—Cloudy,—clear,—the astronomer at his instrument—hello,—telescope wet,—it rains,—close shutters—ten minutes later, sky smiles as if to disavow it ever rained,—shutters open—get three threads—clouds—a prayer—try another star—is landed—rain again, and so on through the night. Vigilance and patience, however, eventually secure their reward, and a sufficient number of stars and satisfactory nights are secured to move on to pastures new.

Atmospheric electricity was found most vividly displayed at Southport, Queensland. The flashes and crashes were sufficient to disturb people not possessed of hyper-

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sensitive nerves. However, having been fully informed before arrival of the pyrotechnics peculiar to the place, when they did come they were looked upon as quite natural.

It may be noted here that on Monday, November 2, the daily papers of Australia brought news of Saturday, October 31 from France that heavy magnetic disturbances had taken place, causing an interruption or partial interruption of telegraphic and telephone communication with the rest of Europe and with America. Communication was suddenly restored at sunset. Atmospheric phenomena accompanied the disturbance, including an aurora borealis. Being interested in the disturbances caused by earth currents, personal inquiries were made at the government telegraph office, Sydney, and through the kindness of the superintendent, Mr. Young, the following was furnished me:—

‘Particulars of interruptions to telegraph lines in the state of New South Wales as observed from the chief office (Sydney) on October 31, 1903:

‘At 4 p.m. (Greenwich 6 a.m.) the current in the Melbourne quadruplex circuit fluctuated considerably, and at 5 p.m. southern quadruplex circuits suddenly disclosed a foreign element. Two copper wires were the first affected, the galvanometer indicating a varying current from 10 to 25 degrees, which was located between Mittagong and Goulburn. Other southern circuits were unworkable. The disturbance appeared much stronger further south than Goulburn. At 6.50 p.m. it was necessary to close the No. 2 side of the Bathurst (western) quadruplex.

‘The northern quadruplex circuits, though not so seriously affected, worked indifferently after 6 p.m. These conditions continued in a more or less aggravated form right up to 8.15 p.m., when most of the offices were closed for business. The telegraph lines running in a southerly direction were the most violently affected.’

In the Monthly Notices of November, 1903, the Astronomer Royal gives the beginning of the magnetic storm observed at Greenwich, as October 31, 6 a.m. agreeing with the time given for the beginning of the disturbances noted on the telegraph lines in Australia. These disturbances were simultaneous with the appearance of a great group of spots near the centre of the sun's disc. At Greenwich ‘the movements of all the magnets were extremely violent.’ The extent of change of the declination magnet was over two degrees in about three hours. Elsewhere, too, over the whole surface of the earth, where observations are taken, this great magnetic storm of October 31—November 1 manifested itself on the magnetic instrument.

While engaged at Transatlantic longitude work at Canso, Nova Scotia in 1892, some severe earth currents (magnetic storms) were experienced, notably the one of July 16, which was also recorded at Brest, Malta, Cairo, Madras and east to Singapore; and the one of August 24. The deflections of the siphon on the fillet of paper were far in excess of that caused by the cable current or difference of potential. When the earth currents set in on the evening of the latter date the aurora borealis was quite marked, and appeared swaying in broad faint waves southward from the north. From records of the cable office there, it appears that there are more earth currents at night than during the daytime. The most extraordinary phenomenon of the earth currents is that, from the siphon record, one is led to believe that they alternate from one polarity to the other. Professor Preece, however, maintains that, although they are variable, they are continuous, and give no indications of alternations. From the direction of the cables it is noticed that cables running east and west are far more troubled with these currents than cables running north and south. There is, however, a wide difference on east and west lines, and they are felt more on the American than on the European side of the Atlantic. The year 1892 was remarkable in the number and severity of electric storms and earth currents. From the supposed periodicity in the earth currents corresponding to the eleven-year solar cycle, it was anticipated that 1903 would show abnormal disturbances by earth currents. By the insertion of a condenser at each end between the cable and the receiving and sending instruments, earth currents through the cable are thereby obviated.

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A word before closing about the speed of messages on cables. Let it be remarked at once that as far as the actual time occupied on the cable itself for the transmission of a signal is concerned, that is a negligible quantity, for, if we imagine a single cable of sufficient capacity to compass the earth, a signal would make the circuit in about two seconds. As it is not practicable to have a single cable very many thousands of miles in length, the communication is made by numerous sections, part of which are cable and part land lines. This necessitates repetition by manual transmission and here is where the unavoidable delay occurs, to say nothing of stress of business causing further delay. As an example of speed under the most favourable conditions may be cited the despatch per British Pacific cable—the All-Red line—and Canada from Melbourne to London last November, giving the result of the cricket match played with the all-England team. Fourteen minutes in absolute time after the despatch left Melbourne the result of the match was sold in bulletins on the streets of London.

Poor Puck is left far behind, when Shakespeare lets him say: 'I'll put a girdle round about the earth in forty minutes.'

The reduction of the observations is now well in hand, and the whole work is being carefully checked. Several views are added to illustrate the report.

APPENDIX 3 TO THE CHIEF ASTRONOMER'S REPORT OF 1904.

JOINT REPORT ON THE SURVEY AND REMONUMENTING OF THE QUEBEC- NEW YORK INTERNATIONAL BOUNDARY.

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| <i>W. F. King, Chief Astronomer (Canada).</i> <i>Hon. Edward A. Bond, State Engineer and Surveyor,</i> <i>New York (U.S.).</i> | } | <i>Commissioners.</i> |
|--|---|-----------------------|

January 10, 1903.

We, the undersigned, EDWARD A. BOND, of Albany, State Engineer and Surveyor of New York, and WILLIAM F. KING, of Ottawa, Chief Astronomer of the Department of the Interior of Canada, representing the State of New York and the Dominion of Canada respectively in the work of the resurvey of the international boundary line between the United States and the Dominion of Canada, from the Richelieu to the St. Lawrence river, and the renewal of the monuments marking the same, beg to report as follows upon the operations conducted under our direction.

The line under consideration, between the rivers above named, forms part of the northern boundary of the state of New York and of the southern boundary of the province of Quebec. The boundary between the United States and Canada in this region was described by the first article of the Treaty of Washington, August 9, 1842, as following, from Hall's stream, a tributary of the Connecticut river, to the St. Lawrence, the line surveyed previous to 1774 by Valentine and Collins as the 45th parallel.

A few words as to the history of this definition may not be out of place here. The 45th parallel of north latitude was named as the northern boundary of a certain grant by James I. in 1606. Again, by Royal Proclamation of 1763, and Order in Council of 1768, the same parallel of latitude was designated as the boundary between the provinces of New York and Quebec in this quarter. A survey of the 45th parallel was made in the years 1771-74 by Messrs. Valentine and Collins, to form the line between the provinces.

By the second article of the Treaty of Paris, 1783, the boundaries of the United States were described thus:—

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'From the north-west angle of Nova Scotia, viz., that angle which is formed by a line drawn due north from the source of Saint Croix river to the Highlands; along the said Highlands which divide those rivers which empty themselves into the River St. Lawrence, from those which fall into the Atlantic ocean, to the north-westernmost head of Connecticut river; thence down along the middle of that river, to the forty-fifth degree of north latitude; from thence by a line due west on said latitude, until it strikes the River Iroquois or Cataraquay.

By the fifth article of the Treaty of Ghent, 1814, the description contained in the above treaty as regards the eastern portion of the land boundary from the source of the St. Croix to the St. Lawrence river, was confirmed, and provision was made for the appointment of commissioners to survey and mark the line.

The commissioners appointed under this article failed to agree. Besides the difficulties in interpretation which arose relative to the 'North-west angle of Nova Scotia,' and the 'Highlands,' and which were the subject of controversy for more than twenty years afterwards, the commissioners found that the line surveyed and laid out by Valentine and Collins did not coincide with the 45th parallel. It was 151 feet north of it at the St. Lawrence river; it crossed the parallel southward four miles east of the St. Lawrence, running 2,506 feet south of it at $17\frac{1}{2}$ miles east of the St. Lawrence; again crossing the parallel to the northward at 35 miles east of the St. Lawrence, it was 4,200 feet north of it at the outlet of Lake Champlain.

The commissioners having reported their failure to agree upon any part of the eastern portion of the land boundary, further negotiations were entered into by the two governments, resulting in the reference of the matter to the King of the Netherlands by treaty of 1827.

The award under this treaty, given on January 10, 1831, as regards the New York and Vermont part of the line, again designated the 45th parallel, but with a diversion to the north at the west side of the Richelieu river, so as to include in New York, Fort Montgomery, which had been erected by the United States north of the true parallel but south of the Valentine and Collins line, which at this point was 4,200 feet north of latitude 45° .

The award of the King of the Netherlands having been rejected, the question was again opened up, and was not finally settled until the treaty of August 9, 1842.

By this treaty the line of Valentine and Collins was reverted to as the international boundary.

In 1843 Lt.-Col. Estcourt and Mr. Albert Smith were appointed commissioners under article I. of the treaty of 1842, to survey and mark the boundary line from the source of the St. Croix to the St. Lawrence river. They laid down the New York portion of the boundary in the year 1845. Their final joint report was dated June 28, 1847. They marked the line with cast-iron monuments, a description of which will be found in the annexed report of Messrs. Bigger and Willis. The commissioners, with their report, filed plans and field notes of their survey. Certified copies of these field notes were procured by us, for use in our operations, in March last from the War Department in Washington, where the originals are on record, together with copies of a tabular statement showing the deflection angles and distances between monuments, with the data procured by Lieut. Thom, U.S.A., from a resurvey made in 1851. Appendix No. 1.

The Laws of New York, chapter 421 of 1837, section 2, provide for an examination in that year, and every three years thereafter, under the direction of the State Engineer and Surveyor, of all monuments on the boundary lines of the state, and also for a replacing and resetting, in co-operation with the authorities of adjacent states, of such monuments as may be found injured or displaced.

Under this law, examinations of the monuments along the Canadian boundary have been made every three years since 1837. The examination of 1890 was participated in by an officer appointed by the government of Canada.

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While very serious deterioration of the monuments placed in 1854 was then observed, subsequent examinations showed progressive falling off in their condition, until the necessity of repair or renewal of the monuments became urgent.

In 1889, Mr. Bond, State Engineer and Surveyor of New York, called the attention of the government of Canada, through the Minister of the Interior, to the matter, suggesting another joint examination. Subsequently, the Governor of the state of New York, at the instance of the State Engineer, wrote to the Secretary of State of the United States, stating the necessities of the case. Appendices Nos. 2 and 10.

The Canadian government was unwilling to enter upon an examination of the monuments without provisions for their renewal where found necessary, and this, it was thought, could not properly be undertaken except in conjunction with the United States government. Appendix No. 5.

In May, 1900, the government of Canada, by Minute of Council, proposed, through the usual diplomatic channels, a joint examination and repair of monuments along the whole of the boundary line between the United States and Canada. Appendix No. 5.

The United States government did not, at the time, accede to this proposal; but, in October, 1900, the Secretary of State transmitted, through the British ambassador, the proposal of the state of New York, with an expression of his concurrence in the same. Appendix No. 7.

On January 5, 1901, the government of Canada expressed their willingness to cooperate with the state of New York, now that the agreement of the United States government had been secured, but suggesting that the scope of the proposed operations be enlarged so as to cover the whole of the eastern part of the boundary. Appendix No. 8.

On July 15, 1901, the Secretary of State of the United States, at the request of the Governor of New York, again brought the matter to the attention of the British ambassador, stating the necessity of speedy action, and on August 16 the government of Canada replied by Minute acceding to the proposal. Appendices Nos. 13 and 11.

At the beginning of September, Mr. Bond was authorized by the Governor of the state to open negotiations with the Department of the Interior of Canada, and on the 28th of that month the Canadian government appointed Mr. W. F. King as their Commissioner, with authority to make arrangements for the prosecution of the field work. Appendices Nos. 15, 16 and 19.

The Commissioners thus appointed decided, before proceeding with the replacing of the monuments, to have a careful examination of the existing monuments made, and for that purpose, and for such further field operations as should be found necessary, appointed representatives: the State engineer appointing Mr. H. P. Willis, of Schenectady, and the Canadian Commissioner, Mr. C. A. Bigger, of Ottawa, in October, 1901.

These gentlemen went over the line in October and November, 1901. After consideration of their report it was thought advisable to replace all the old monuments by new ones. After considering various forms of iron and steel monuments, we decided to adopt granite with concrete base, and also to make a precise survey of the whole line.

Tenders were called for, both in Canada and the United States, for the construction of these monuments, to be delivered at certain railway stations near the work on or before March 1, 1902. The tenders were opened on January 5, 1902, and the contract was awarded to E. R. Fletcher, of Hardwick, Vermont, whose tender was the lowest.

The monuments are 6 feet in length, the lower portion of the stone having an ashlar face, 12 inches square, for 1 foot of its length. From this point for a distance of 4 feet 7½ inches, the stone tapers from 12 inches to 9 inches on each side, with each corner having a bevelled face of ½-inch wide. The remaining 4½ inches at the top is dressed in the form of a pyramid.

It was decided that they should be set in concrete bases, 3 feet square, and averaging 4 feet 6 inches in the ground and 9 inches above the surface. One foot of the

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granite stone was embedded in the concrete. The upper surface of the concrete was given a slope to turn rain, and on it was imprinted the lettering, as follows:—

On the south side, 'U.S.'

On the north side, 'Canada.'

On the west side, 'Treaty 1842.'

On the east side, the number of the monument, with 'Renewed 1902.'

In the case of the new monuments, the word 'renewed' was omitted, and the letter A followed the number.

The actual field work was begun by Messrs. Bigger and Willis on June 3, near Rouse's Point, and the last monument was set on or about October 12. The line survey continued later, and some of the astronomical work yet remains to be done. A full account of the field work will be found in the annexed report by Messrs. Bigger and Willis. Appendix No. 1.

We recommend that the new monuments be accepted as marking the true line between Canada and the United States, as under the 1st article of the treaty of the 9th August, 1842. We further recommend that periodical inspections, with repair if necessary, be made jointly by the government of the United States and Canada.

Copies of correspondence relating to the agreement under which our work was done, diagram showing the form and dimensions of the new monuments, and copy of the report of Messrs. Bigger and Willis, are submitted herewith. Appendix No. 23.

Signed in duplicate at Albany, in the state of New York, this tenth day of January, 1903.

EDWARD A. BOND,

State Engineer and Surveyor.

W. F. KING,

Chief Astronomer.

List of appendices to joint report by W. F. King (Canada), and Hon. Edward A. Bond (U.S.), on the survey and remonumenting of the Quebec-New York international boundary:—

1.—Report by Messrs. Bigger and Willis.

1899.

2.—May 9. Bond to Deville.—Proposes joint inspection.

3.—May 15. Deville to Bond.—Formal acknowledgment.

1900.

4.—March 2. Bond to Deville.—Re-opens question.

5.—May 26. Order in Council.—Canada willing to join United States in examination and repair of whole southern boundary.

6.—Oct. 23. Bond to Hay.—Wants State Department to take up matter with Canada.

7.—Oct. 29. Hay to Bond.—Has submitted matter to H.M. Ambassador. No new convention necessary.

1901.

8.—Jan. 5. Order in Council.—Objection now removed. Canada willing to co-operate, but suggests that scope of operations be enlarged.

9.—Aug. 5. Odell to Bond.—Transmitting copy of letter from Adee.

10.—Aug. 3. Adee to Governor N.Y.—No reply from H.M. Ambassador.

11.—Aug. 16. Order in Council.—Concurrence with proposal of United States Secretary State as to demarcation of limited portion of line.

12.—July 17. Lowther to Minto.—Transmits note from United States government.

13.—July 15. Hay to Lowther.—Gratification at assent of Canada to general survey and repair of whole line, but suggests limited operations.

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- 14.—Jan. 12. Pauncefote to Minto.—Acknowledges O. in C. intimating willingness of Canada to join in demarcation of Quebec-N.Y. line.
- 15.—Sept. 2. Graham to Bond.—Transmitting letter.
- 16.—Aug. 30. Adee to Governor N.Y.—Canada concurs in Governor's proposal *re* Quebec-N.Y. line. State Engineer may be put in communication with Department of Interior.
- 17.—Sept. 4. Bond to Odell.—Has taken matter up with Department of the Interior, Canada.
- 18.—Sept. 4. Bond to Deville.—Submits form of agreement for joint operations.
- 19.—Sept. 28. Order in Council.—Recommending appointment of Mr. W. F. King, Chief Astronomer, as Commissioner on behalf of Canada.
- 20.—Sept. 2. Lowther to Minto.—Transmits copy of note from United States government.
- 21.—Aug. 30. Adee to Lowther.—Has notified Governor of N.Y. of Canada's assent to restoration of monuments on New York-Quebec line.
- 22.—Copy of agreement for inspection, restoring and replacing of interstate boundary monuments, signed by Edward A. Bond, New York, and James W. Latta, Pennsylvania.
- 23.—Diagram, showing form and dimensions of new granite monuments.

APPENDIX No. 1.

REPORT OF MESSRS. BIGGER AND WILLIS.

Hon. EDWARD A. BOND,
State Engineer and Surveyor,
Commissioner for the State of New York.

WILLIAM F. KING, Esq.,
Chief Astronomer, Department of the Interior,
Commissioner for Canada.

When in October, 1901, we were directed by you to make an examination of the boundary line between the state of New York and Canada, we met at Rouse's Point on the 22nd day of that month, and began our work at monument No. 645, near the west bank of the Richelieu river, and followed the line westerly to the St. Lawrence river, which was reached on November 8.

The monuments marking the section of the line were, with two exceptions, hollow cast-iron pillars, 6 feet long, the lower half in the ground being 6 inches square, with projecting flanges at the bottom, the upper half above the ground tapering to 4 inches, the top closed in the form of a pyramid.

These monuments were set under the direction of commissioners appointed pursuant to the Treaty of Washington concluded August 9, eighteen hundred and forty-two. The names of the commissioners, &c., in large projecting letters appear vertically on the sides of the monument as follows:—

North side, J. B. Estcourt.

South side, Albert Smith.

East side, Treaty of Washington.

West side, Boundary Aug. 9th, 1842.

In our examination of October, 1901, we found the location and the condition of these monuments briefly as follows:—

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No. 645 lay in about 2 feet of water, and 100 feet out from the westerly shore of the Richelieu river. This monument is much larger than those described above.

No. 646 is a large cut-stone monument, standing plumb, and is in excellent condition. There are inscriptions on the several sides, giving the names of the commissioners, the astronomer and his assistant, the countries divided, the latitude, 45 00 42-8; longitude, 73 21 27, and the date of the treaty.

No. 647 stood on the south side of an east and west road, 49 feet west of a north and south road, and about 66 feet west of the centre line of the Grand Trunk Railway; leaning 10 inches or 12 inches south, loose in the ground, and cracked down the south-west corner.

No. 648 on the east side of a highway, running north and south, and on the south side of the westerly extremity of a road from the east; leaning northwesterly at an angle of 45 degrees, and cracked down the southeast corner.

No. 649 standing diagonally in line, about 8 feet south of a ditch, and 100 feet east of cedar, elm and maple second-growth on the south side of the line; in perfect condition, but leaning 8 inches or 10 inches south, and quite loose in the ground.

No. 650, about 25 feet west of the west side of a north and south road; entirely out of the ground. The original site was pointed out by parties living in that vicinity, and was indicated by a group of small field stone, about 9 feet east of an open shed.

No. 651, on the north side of a rail fence, leaning 6 inches south, and not firm; is in good condition; land is cultivated on both sides of the line. Monument about 212 feet west of a fence running south and 294 feet west of a fence running north.

No. 652 in a rail fence in timber, and standing diagonally to line; condition perfect.

No. 653 in a north and south highway, about 7 feet west of the easterly limit thereof. There is a road on the Canada side of the line from this point west.

No. 654 about 15 feet west of east side of a north and south road, and in line with a stone fence which forms the southerly boundary of a road from the east, terminating at this point; monument leaning northwest, but in good condition.

No. 655 in an opening in the centre of a stone fence, leaning south, otherwise in good condition; on the westerly slope of high ground, and about 153 feet west of a stone fence running south.

No. 656 in dense swamp, about 500 feet west of the present easterly limit; diagonal to line; leaning 6 inches or 8 inches to the east, and in good condition.

No. 657 in a rail fence on a summit about 680 feet east of the highway; leaning 18 inches northeast, but in perfect condition.

No. 658 on the south bank of a ditch, and projecting about 2 feet 6 inches above the surface; the north and part of the east side to the depth of 17 inches below the top broken out; a creek crosses the line about 120 feet west of the monument.

No. 659 on the west side of a private road locally known as Lucas's road; about 4 feet west of the centre line of a stone fence running south and about 5 feet north of the northerly end thereof; leaning a few inches east, but solid and in good condition.

No. 660 near the west side of a travelled road in line with a rail fence running west, and 57 feet 6 inches north of the northeast corner of a brick dwelling house owned by James Toner.

No. 661 on the west side of Upton's road, standing plumb, and in excellent condition.

No. 662 in south side of brush fence in mixed timber, principally cedar; monument leaning 8 inches or 10 inches south, but in perfect condition; about 10 feet south and 20 feet east of a large poplar.

No. 663 in hardwood timber, about 270 feet east of the southeast angle of cleared land on the Canada side; heaved about 4 inches, and not firm; leaning northerly 10 inches or 12 inches, otherwise in good condition.

No. 664, 10 feet east of a rail fence running north, and on the south edge of a

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rail fence running east and west; loose in the ground and heaved about 3 inches; small triangular piece broken out on the south side.

No. 665 on summit of a narrow ridge; a strip of clearing extends north from the line along the ridge. This monument was broken off close to the ground, the top standing on the cedar core; an old road runs north and south along the ridge.

No. 666 on a slight elevation opposite a small clearing to the south of the line; a second growth of timber continues on the north side of the line; clearing on the south side extends about 150 feet east and about 750 feet west of the post.

No. 667 on a pastured ridge running northeast and southwest; clearing to the north 200 feet wide; clearing on the south commences at this point and extends west; post in perfect condition.

No. 668 on the west side of a highway; heaved 18 inches; loose in the ground, otherwise in perfect condition. A small frame building used as a grocery store stands about 200 feet to the east and on the line; a stone building also occupied as a store and dwelling stands 45 feet or 50 feet to the west of the monument and on the line; names on sign, 'Rose, Jodoin & Son.'

No. 669 in perfect condition; on the southeast angle of a clearing, and diagonal to the line; a rail fence runs north from this monument.

No. 670 in mixed timber, about 250 feet west of a creek, and 350 feet west of the beginning of the timber on the north side of the line; post heaved 15 inches, and very loose in the ground.

No. 671 on a ridge running north and south, and about 40 feet west of a fence running south; heaved 18 inches; and a piece broken out about 3 feet from the top.

No. 672 on a small knoll in a rail fence, 19 feet east of a wire fence running north; leaning north, and cracked down the southeast corner.

No. 673 in centre of a lane, heaved and almost down; condition perfect.

No. 674 on the west side of Nichol's road; was very loose, and had been heaved considerably; leaning at an angle of 45 degrees, but in perfect condition. Mr. Schriber's house is on line about 68 feet east of the post.

No. 675 diagonal to line, and in perfect condition; about 25 feet west of the post a board fence runs south, and about 35 feet west a rail fence runs north into Canada.

No. 676 on the top of a bank about 75 feet west of a creek; diagonal to line; heaved 4 inches; loose in the ground, but plumb.

No. 677 on the top of a ridge; broken off below the surface; about 600 feet west of Mr. Richards' clearing.

No. 678 on the northeast slope of a rocky ridge about 10 feet west of a brush fence; diagonal to line; very loose, and heaved 10 inches, but plumb and in good condition.

No. 679 heaved 2 feet, very loose, leaning east; a square section broken out about 3 feet from the top; 150 feet west of the northeast angle of cleared land.

No. 680 at the north end of a rail fence, and due north of a small schoolhouse on the main road. This monument was used as a fence post, a wire fence leading east and west therefrom; heaved 6 inches, loose in the ground, but plumb; badly cracked on the east side.

No. 681 on a high hill near a summit at the northeast angle of a pasture; leaning 6 inches east, heaved 6 inches, and cracked on the west side.

No. 682 on west side of a highway; loose; heaved about 20 inches; leaning 6 inches south; in good condition. Mr. Sheay's barns are on the line a short distance to the west.

No. 683 in thick timber at the top of a steep slope from the east; leaning slightly east and north; heaved 3 inches; solid in the ground and in perfect condition.

No. 684 on high ground, plumb and firm; heaved 8 inches; a section 21 inches long broken out of the west side; also small hole near top; a piece 10 inches long broken out of the east side; about 150 feet east of an abandoned clearing; formerly occupied by Robert Story, now owned by Charles Barr.

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No. 685 on the summit of a ridge, a few feet east of McDermott's east line; a wire fence to the east and north; post heaved 12 inches, and quite loose in the ground; turned sideways in the hole; badly cracked on east side near the top; had been used as a target; a good winter road passes about 100 feet to the south of the post.

No. 686 on the south slope of the bank of a creek; heaved about 10 inches, quite loose, and leaning 6 inches east and south. A piece 6 inches long was broken out 1 foot below the top; the north side cracked.

No. 687 on a ledge of rock north of and about opposite the centre of the pond in the 'Gulf,' about 20 feet below the summit level, and about 30 feet north of where the ledge breaks off almost vertically. The pond is 100 feet (approximately) below the level of the post, and in a deep gorge, which crosses the line diagonally northwest and southeast. The monument stood 5 feet above the surface, with large pieces of rock around it; quite loose, but plumb, and in perfect condition.

No. 688 on top of what is called Huckleberry Rock on the southwest side of the 'Gulf,' the site was marked by a flat-pointed stone on end, surrounded by a number of large flat stones similar to those placed around No. 687. A small piece of the monument was found in the hole.

No. 689 in a depression on high ground about 130 feet west of a cluster of three white birch trees; diagonal to the line; loose in the ground; leaning west 3 inches or 4 inches; heaved 8 inches or 10 inches otherwise in perfect condition.

No. 690 had been heaved 18 inches; quite loose in the ground, leaning about 15 inches to the west; diagonal to the line; about 200 feet east of Mr. McDowell's road, and 150 feet east of a small meadow to the south of the line.

No. 691 about 40 feet west of a winter road on Woodward Jackson's farm; heaved 18 inches; leaning 18 inches southwest, and quite loose in the ground; otherwise in good condition. About 80 feet west of this point a survey post marked XXXXI-XXXII stands about on line, and is intended for a lot line in Canada.

No. 692 on south edge of a good winter road along the line; broken off close to the ground; the top reversed, and standing in the base; the shell varied in thickness from 5-16 to 3-4 of an inch.

No. 693 lying on the ground near a wire fence; its site was marked by a small circle of stones; there is a small clearing to the northeast of the post on the Canada side of the line.

No. 694 on a slight elevation, sloping north and west; diagonal to line; solid in the ground; leaning 3 inches east, and in perfect condition.

No. 695 in a thick second growth, about 20 feet north of a rail fence; pasture to the south of the line, extending to a rail fence 200 feet to the east; about 1,100 feet east of the Clinton Mills road; monument leaning 4 inches east; heaved slightly, but in perfect condition.

No. 696 on high ground in thick hardwood bush, and about 8 feet south of a wire fence; firm in the ground, though heaved 2 inches; leaning southwest about 5 inches.

No. 697 in stone bottom of fence running east and west, and about 3 feet east of a wire fence running north; broken off near the ground, reversed and standing on bottom section; pasture to the south, and woods to the north.

No. 698 in a rail fence, leaning 3 inches north and 4 inches west, solid in the ground, and in perfect condition; cultivated land on both sides of the line; a wire fence runs north into Canada about 130 feet west of the post.

No. 699 on a high ridge opposite a fence running south; heaved 6 inches; leaning 6 inches south, but in good condition.

No. 700 on the top of the east bank of a stream; heaved 8 inches; leaning 10 inches south, and loose in the ground; diagonal to line; in perfect condition. There is a highway known as the Churubusco road about 570 feet east of this monument.

No. 701 about 60 feet west of a wire fence running south; nearly opposite and about 40 feet south of a large ash tree; monument leaning west and south, loose in the ground; heaved 12 inches, but in perfect condition.

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No. 702 leaning northeast about 5 inches; diagonal to the line; loose, and heaved about 4 inches; condition perfect. Pasture land to the north and south of the line, and a rail fence leading east.

No. 703 on east side of a road, projecting above ground 2 feet 4 inches; leaning north and west, but is firm; small pieces broken out near the top on the east and west sides. Monument stood 10 feet 6 inches west of a frame store owned by O'Neill Brothers, and had been used as a hitching post.

Nos. 704 and 705 in a field about 12 feet north of a wire fence; they were on the line, and about 8 feet apart; both heaved about 12 inches; No. 704 leaning 12 inches north and 6 inches west; No. 705 leaning about 8 inches or 10 inches west and north, and slightly loose in the ground. The placing of two monuments close together indicates an astronomical station.

No. 706 about 120 feet east of a wire fence on the Canada side; leaning northwest under a tree top, and almost down; condition perfect.

No. 707 in a rail fence about 600 feet west of a highway, and about 90 feet east of a wire fence on the north side; bottom of the post in the ground under a pile of stones; top broken off.

No. 708 about 60 feet east of the northwest angle of a small pasture south of the line; leaning a little south and west; heaved about 6 inches; slightly loose, but in perfect condition.

No. 709 in a rail fence 25 feet west of a wire fence running south and 60 feet east of poplar bush on the Canada side; post leaning north, very loose, and almost down, but in perfect condition.

No. 710 lying on the north side of a rail fence about 360 feet east of travelled road. Some stones had been placed around the hole, which was on the south side of the fence; the post in good condition.

No. 711 upon the east side of the highway; firm in the ground; heaved about 3 inches; leaning 15 inches or 18 inches west; a small hole on the east side near the top; band about 2½ inches wide just below the top; apparently used as a hitching post; in front of brick store owned by J. C. Cook.

No. 712 in pile of stones on the south side of a rail fence about 60 feet east of a rail fence which runs north into Canada; leaning about 18 inches southwest; firm, and in perfect condition.

No. 713 about 75 feet west of stone fence running south; on the south side of a rail fence; heaved 6 inches; leaning north 8 inches; loose in the ground, with stones piled around the base; cleared land to the north and south of the line.

No. 714 on the east side of the Chateauguay road, 25 feet west of the remains of stone foundation of burned building; Richard Boyd's store stands on the west side of the highway, and is on the line; monument leaning 4 inches north, but solid in the ground, and in good condition.

No. 715 on high ground; heaved 3 inches; leaning 2 inches north, but solid in the ground, and in perfect condition.

No. 716 in low ground 50 feet or 60 feet west of a low ridge; 15 feet south of a brush fence; heaved 3 inches; leaning 6 inches east, and in good condition.

No. 717 diagonal to the line; leaning 5 inches north; solid in the ground, and in good condition; in a wire fence running east and west, and about 80 feet east of a fence running north.

No. 718 on the north side of a wire fence about 200 feet west of the northeast angle of a clearing on the New York side; slightly heaved; leaning 3 inches west, and in perfect condition.

No. 719 on the east side of highway; leaning east 8 inches; heaved 4 inches, with triangular piece broken out of east side near the bottom; bullet hole in the west side; the remains of old stone buildings on line stand about 40 feet west of the monument; it is claimed by those residing in the vicinity that this post had been moved north.

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No. 720 in the valley of the Chateauguay river; 10 feet west of the edge of the channel; diagonal to the line; slightly loose; leaning 4 inches north, and, with the exception of a bullet hole in the southwest side, in perfect condition.

No. 721 on the west side of the highway; leaning 8 inches east and north; badly cracked, and a piece broken out of the east side; opposite and 5 feet east of the northeast angle of a frame store, owned by Mr. Bush.

No. 722 on the south side of a rail fence on the first knoll west of the highway; diagonal to the line; slightly loose in the ground; heaved 6 inches; leaning north and east about 4 inches; in perfect condition.

No. 723 in wire fence on a ridge in hardwood timber, about 360 feet west of a line in Canada, starting from a survey post marked XVIII on west side, XIX on the east side; monument diagonal to the line; heaved about 3 inches; plumb; two cracks down the southwest side near the top.

No. 724 on knoll 1 foot south of a wire fence in hardwood second growth; heaved 4 inches; slightly loose in the ground, and leaning 3 inches north.

No. 725 about 60 feet west of a wire fence, running south; 15 feet south of a brush fence running west; diagonal to the line; heaved 6 inches; quite loose in the ground, but plumb, and in perfect condition.

No. 726 on dry ground, cleared to the north; small brush to the south; 2 feet south of a wire fence; heaved 6 inches; quite loose, leaning 6 inches south; about 123 feet west of a wire fence running south into New York state, and about 200 feet west of a wire fence running north on the west side of a small cultivated field in Canada.

No. 727 on low ground 1,200 feet west of road and about 200 feet west of clearing on Canada side; in an open place in second growth, and stands 6 feet south of a wire fence; leaning north 4 inches and west 2 inches; heaved 6 inches; solid in the ground, and in perfect condition.

No. 728 on northerly slope of high ground in open hardwood timber; sharply defined, ridge starting 120 feet northwest and running northeasterly some distance; post diagonal to the line; heaved 7 inches; solid and plumb; piece 12 inches long out of the southwest side, and post badly cracked on the southwest and southeast sides.

No. 729, 55 feet west of a wire fence running north on the west side of a clearing in Canada, and about 55 feet east of Stebbins' creek; cultivated land on the south; post heaved 8 inches, quite loose; leaning 12 inches southwest; in good condition. Mr. Stebbins' barn is nearly opposite, and about 1,200 feet south of this monument.

No. 730 on a dry stony ridge, about 325 feet west of a rail fence running north; pasture land on both sides of the line; post on the north side of a rail fence, in stone pile; firm in the ground, leaning 4 inches south, and in good condition.

No. 731 on south edge of a small pasture in Canada, on east edge of rocky knoll, about 40 feet east of a group of large bushy hemlocks; post broken off diagonally from 18 inches above down to near the surface of the ground; bottom section solid, but heaved 8 inches, and leaning northeast; irregularity in thickness of shell very noticeable.

Nos. 732 and 733 on line about 10 feet apart on the south edge of cultivated land a short distance east of Trout river. Both monuments were leaning northwest, and were almost down; a cluster of elms has grown up between the posts. The placing of these two monuments close together indicates, as already mentioned, an astronomical station.

No. 734 formerly stood on a peninsula in Trout river. The construction of a dam has raised the water so that during spring freshets the site is covered. It does not appear that this monument could usefully be replaced.

No. 735 on Main street in Trout River village, just outside of a two-plank board walk 14 feet 3 inches east of Mr. Dolan's hotel; broken off close to the ground; base apparently in original position; line crosses Main street diagonally, a number of buildings being intersected.

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No. 736 on the north side of a rail fence, a short distance west of the village of Trout River; diagonal to the line; heaved 18 inches; leaning northwest at an angle of 30 degrees with horizon, but is in good condition.

No. 737 on top of a stony knoll on the south side of a rail fence; pasture land on both sides of the line; post 16 feet west of rail fence running south; just north and west of the post, there is a thicket of small cedars; monument diagonal to the line; solid in the ground, plumb, and in good condition.

No. 738 in pasture land 8 feet south of rail fence; at foot of a stony ridge, running southwest; heaved 18 inches; very loose in the ground; leaning 2 feet southwest, but in perfect condition. Some stones had been placed around the base; pasture land extends to the south; cultivated land to the north of the line.

No. 739 was found leaning northwest against a rail fence; bottom in a ditch; the core still in the ground; monument in perfect condition. The land adjacent to the line on both sides is level and cultivated.

No. 740 on the south side of a rail fence 210 feet west of a barn on the Canada side of the line; heaved 8 inches; loose in the ground; leaning 30 inches southwest, but in good condition; cleared land on both sides of the line.

No. 741 on the south side of a rail fence 25 feet west of summit of a rocky ridge; three large trees, a maple, a basswood and a yellow birch stand northeast of the post; monument diagonal to the line; cracked on the northeast side on the top; solid in the ground, and plumb.

No. 742 on the northwest side of a road crossing the boundary diagonally northeast and southwest; heaved 3 inches; plumb, and in good condition. Several buildings belonging to William Amlet stand on the line to the west of the post.

No. 743 in pasture land, about 10 feet north of the west end of a rail fence and the east end of a wire fence; about 6 feet west of a ditch running north; heaved 18 inches; leaning 4 inches south; very loose in the ground and cracked down one corner nearly 2 feet. This post had been turned one quarter around to the east; it was also badly cracked near the bottom.

No. 744, 170 feet west of a creek, 60 feet west of the easterly limit of green timber on the Canada side; heaved 8 inches; leaning 2 feet west; very loose in the ground, but in good condition.

No. 745 at the westerly edge of a bad cedar swamp and at the easterly limit of a rocky ridge; heaved 6 inches; diagonal to the line; leaning 2 inches west; in good condition.

No. 746 heaved 4 inches; leaning south 6 inches; solid in the ground, and in good condition; on high rocky ground on the north side of a rail fence north of an abandoned road, which ends about 60 feet east of the post.

No. 747, 18 inches north of a wire fence on a stony knoll, and in line with a rail fence running northeast; monument diagonal to the line; heaved slightly, but plumb and in good condition.

No. 748 on the east side of a highway in front of an old building used as a store; 1 foot south of the door, and 8 feet out on the street; broken off close to the ground; bottom solid.

No. 749 on south edge of a knoll, the first high ground west of the road; heaved 6 inches; loose in the ground; leaning southwest 12 inches, and cracked on the south-east side.

No. 750 on the summit of a high rocky knoll in the remains of a stone fence; diagonal to the line; heaved slightly; leaning 3 inches south; cracked down the southwest side from the top 18 inches; pasture to the north and south.

No. 751 in low wet ground at the foot of a ridge, 320 feet, more or less, west of a fence running south; very loose; leaning north 12 inches; heaved 5 inches; small hole in the north side 2 feet from the top; on the north side of a rail fence; grove of maples on ridge to the west.

No. 752 on the east side of road leading north from Ft. Covington; leaning 5 inches east; solid in the ground, and in good condition.

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No. 753 in wire fence in low wet land; heaved 18 inches; very loose, plumb, and in good condition.

No. 754 near the centre of the main street of Dundee; broken off close to the surface; buildings to the east and west on line.

No. 755 broken off 6 inches below the surface by ice; on northeast side of road along west bank of Salmon river; top now lying on the east side of the road.

No. 756 about 300 feet west of the east edge of Dundee swamp; on the south side of winter road, and about 65 feet west of a rail fence running south; diagonal to line; heaved 18 inches; leaning southeast about 3 feet; in perfect condition.

No. 757 in Dundee swamp 15 feet south of the winter road; heaved 12 inches; leaning 36 inches west, but in good condition.

No. 758 near the southwest corner of clearing on Tyo's island; some stones around the base; very loose; leaning southwest 2 feet; heaved 1 foot; in perfect condition; diagonal to the line.

No. 759, 1,120 feet west of Pyke's creek; was found lying on the ground beside the fence; no evidence as to its position on line.

No. 760 on the northeast side of a road which comes up to the boundary from the south and extends west along the boundary for a short distance, and thence northwesterly into Canada; post at the west end of a stone wall from the east along line; leaning 36 inches northwest; solid in the ground, and in perfect condition.

No. 761, 2 feet north of a wire fence in low swampy ground; cleared land to the north, but many stumps south of the line; about 200 feet west of an ash and elm swale, and is nearly north of Hollinbeck's house; heaved 15 inches; very loose in the ground, but in perfect condition.

No. 762 on high land between two swamps; 22 feet east of a wire fence running south; very loose; heaved 10 inches; leaning northwest 5 inches; diagonal to the line; cleared land to the north and south.

No. 763 in dense wet alder swamp, 596 feet west of the easterly limit thereof; was very difficult to find.

No. 764 on easterly slope of hardwood ridge, leaning 1 inch south, and 1 inch east; in good condition; about 500 feet west of the alder swamp.

No. 765 about 80 feet east of a water course; in a low wet meadow; willow bushes along the line 200 feet to the west, but no indication of the line to the east for 500 or 600 feet, thence a wire fence; post heaved 12 inches; about 2 feet of the top broken off and missing.

No. 766 in a line of willow bushes; land cleared on both sides; leaning 8 inches east, but solid in the ground, and in good condition.

No. 767; land cleared on both sides of the line; no fence; line indicated by bushes; post about 800 feet south of a yellow house on the highway; leaning 18 inches northwest; solid in the ground, and in good condition; cleared land extends about 600 feet along the line west of the post; thence thick second growth to the north and south.

No. 768 in southwest angle of a small clearing surrounded by brush; leaning 8 inches west and 6 inches north; solid in the ground; in perfect condition, and diagonal to the line; about 500 feet southwest of a small house in a pine grove.

No. 769 on summit of first ridge east of St. Regis river, in grove of small hickory and oak; heaved 2 inches; leaning 4 inches south, and in perfect condition.

No. 770 formerly on the east bank of St. Regis river; has disappeared.

No. 771 on the main street of St. Regis, 6 feet southeast of a wire fence, leaning south and east 2 inches; slightly loose in the ground; heaved 3 inches; diagonal to the line; has been turned around 180 degrees. Running Deer's house on the east side of the street, and a small building on the west side, are on the line.

No. 772 on high ridge just outside and west of the village of St. Regis; heaved 8 inches; leaning 6 inches east, and in perfect condition.

No. 773 on high ground about 4 feet northeast from old log stable; heaved 8 inches; solid in the ground; leaning west 3 inches and north 12 inches; condition perfect.

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-No. 774 formerly stood on the bank of the St. Lawrence river. The Indians say that this post has not been seen for many years.

In connection with the above description of the condition of the monuments at the time of our examination of 1901, it is of interest to refer to the results of the joint examination of this line which was made in 1890. In the following table a comparison is made in case of a few monuments:—

| Number | Condition in 1890. | Condition in 1901. |
|--------|--|---|
| 670 | Heaved 6 inches, loose though plumb. | Heaved 15 inches, very loose. |
| 671 | Firm, but leaning slightly northeast. | Heaved 18 inches; piece broken out about 3 feet from top. |
| 679 | Heaved 1 foot, loose and leans south. | Heaved 2 feet, very loose. |
| 683 | Post plumb and firm. | Heaved 3 inches, leaning slightly east and north. |
| 685 | In hard ground, plumb and firm. | Heaved 12 inches, quite loose in ground, turned in hole; badly cracked on east side. |
| 686 | Plumb and firm. | Heaved 10 inches, quite loose, leaning 6 inches east and south. Piece 6 inches long broken out of north side. |
| 699 | Plumb and firm, in hard ground. | Heaved 6 inches, leaning 6 inches south. |
| 700 | Plumb and firm in ground. | Heaved 8 inches, leaning 10 inches south and loose in ground. |
| 756 | Leans a little southeast, but is firm. | Heaved 18 inches, leaning southeast about 3 feet. |
| 762 | Plumb and firm. | Very loose, heaved 10 inches and leaning 5 inches west. |

From this we may infer that in another decade many of the posts which we found standing would be entirely out of the ground, and as many of the monuments indicated deflection angles, their re-location would be somewhat difficult. The monuments were not placed below the frost line, and the thickness of the shell was exceedingly irregular, varying from 5-16 to 3-4 of an inch. The action of the frost in the spring drew the post, and the irregular expansion and contraction during extreme temperature cracked the shell.

Originally there were one hundred and thirty monuments set on the section of the line between the Richelieu and St. Lawrence rivers. Erosion of the easterly banks of the St. Regis and St. Lawrence rivers has destroyed the sites of Nos. 770 and 774, and the construction of a dam on Trout river has inundated the site of No. 734, and these monuments have disappeared.

In summing up the above notes of our examination, we may give the following general statement:—

| | |
|---|----|
| In perfect condition (No. 646) | 1 |
| Heaved, leaning, loose or altogether out of the ground, but in good condition | 83 |
| Solid, plumb and perfect | 9 |
| Cracked, broken, or missing | 37 |

130

The above is sufficient demonstration of the necessity of renewing the monuments set in 1845. Ten only out of one hundred and thirty were found in perfect condition.

The decision of the commissioners, under the Treaty of Washington, as to the size and weight of monuments to be used was, no doubt, largely influenced by lack of facilities for transport. Railways and excellent highways now cross and recross the line, and modern conditions prevail.

In reporting to you the results of our examination, we expressed the opinion that the size and weight of the existing monuments were insufficient. Apart from their

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want of permanency, and the difficulty experienced in finding them, their diminutive appearance seemed altogether out of keeping with the importance of the line which they were intended to mark. The international boundary between Canada and the United States should be marked more conspicuously and permanently than by small cast-iron posts.

We observed that there were several railways and a number of highways crossing the line without any mark at the point of intersection. It was noticed that at several places along the line, high ridges occur between the posts. New monuments at road crossings (eleven in all) appeared necessary, and also some five new monuments at intervening points.

In our report we felt unable to advise any material expenditure having for its object the perpetuation of the existing monuments; that is, the ninety-two which were in perfect condition. The cost of scraping, painting and resetting would, perhaps, be about twelve or fifteen dollars each. Although intact, the irregularity in the thickness of the metal would be a constant menace to their stability, and we could offer no satisfactory method of augmenting their strength. Concrete filling was considered, but the question of unequal expansion and contraction would still exist, perhaps to a greater extent, through the introduction of a core having a different and comparatively unknown co-efficient of expansion.

Thirty-six of the existing monuments in any case would have to be replaced by new ones; apart from the additional sixteen at road crossings and intervening ridges.

The visible line, as located under the provisions of the Treaty of Washington, 1842, consisted of an opening in the forest thirty feet wide on the ground, with monuments at deflection and intermediate points. At isolated places the depression in the sky line of the timber is still plainly visible. But there are long sections of second growth where there is not the slightest indication of the position of the line. Where the land is cleared and cultivated, trees and brush have grown up along the fences, so that under present conditions it is almost impossible to see from any one monument to another.

We called your attention to the fact that in the case of the missing monuments, a resurvey of more or less extent would be necessary to replace them, and should you decide to build new monuments throughout, a rigorous instrumental survey of the whole line could be made at the same time at comparatively small additional expense. The plan and field notes of such survey would be of great value to both countries. They would effectually perpetuate the many governing points which indicate deflections along the line now established as the boundary between the province of Quebec and the state of New York. The lengths of the tangents range from twenty thousand seven hundred to twenty-three hundred feet, and the deflection angles from a few minutes to several degrees of arc.

You having decided to erect granite monuments along the whole extent of the line, and having awarded to a firm at Hardwick, Vermont, the contract for their construction and their delivery at certain convenient railway stations by March 1, 1902; your representatives, previous to their delivery, met at Hardwick for the purpose of inspecting and accepting the monuments on your behalf.

In May, we were further directed to make preliminary arrangements for the field work of the renewal of all the monuments from the Richelieu to the St. Lawrence river, and of a rigorous instrumental survey.

We met at Three Rivers and made out statement of the number of men required, the tools necessary for the rebuilding of monuments, and the instruments to be furnished by each country for the purpose of carrying on the survey, and at once submitted them for your approval. We were then directed to commence the work as soon as possible.

On the evening of the 3rd of June, the Commissioner for Canada and your representatives met at Rouse's Point. We at once began assembling material for the monu-

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ments, arranging for labourers, and in every way preparing for carrying out your instructions speedily and successfully.

It was supposed that the monument building would not progress as rapidly as the survey, consequently at the beginning our energies were directed toward that branch of the work, and the first monument (No. 647) was built on June 9.

Water to the depth of five or six feet covered the site of No. 645, which was left until later in the season. After several days' experience, we found that this work could be carried on efficiently with the following staff:—

| | |
|--|---|
| Foreman (expert concrete worker) | 1 |
| Teamsters | 2 |
| Stone breakers | 2 |
| Labourers | 3 |

The new monuments were located and constructed as follows: Where there was no doubt as to the old monument being in its true position, it was first referenced by intersection hubs, east, west, north and south. These hubs projected 12 inches, and were so placed that cords stretched between nails on their tops passed exactly six inches east and north of the centre of the old monument. The old monument was then removed, a hole three feet square (properly placed) was excavated to a depth of about four feet six inches.* Concrete mixture, one part Portland cement, two parts clean sharp sand, and five parts broken stone, properly rammed, was used to fill the excavation to within three inches of the surface of the ground. The cords were placed in position, and the monument adjusted thereto, and kept in place by guys attached to an iron collar which fitted over the pyramidal top. A form three feet square inside and twelve inches high was then carefully placed at right angles to the line and the concrete carried up to its top.

This portion of the base was finished with a mixture of one part cement and one part of sand, the top having an outward slope of about one in ten. While 'setting' was in progress, brass plates with inscriptions of bevelled projecting letters were placed in position on top, and kept there until a perfect impression was obtained. Twenty-four hours after the form was removed and the exposed surfaces given a brush coat of Portland cement grout.

In addition to replacing the original monuments, sixteen new monuments were erected, as follows:—

No. 650 A.—In a rail fence on top of a high ridge, between monuments 650 and 651. This point is visible for many miles from the east.

No. 651 A.—On the easterly side of a highway, between Nos. 651 and 652.

No. 652 A.—In pasture land, on a summit between monuments 652 and 653.

No. 657 A.—On the westerly side of a highway leading north into Canada, and between Nos. 657 and 658.

No. 663 A.—On the east side of a highway crossing the line, between monuments 663 and 664.

No. 665 A.—On the right of way of the Grand Trunk Railway, and near the westerly limit thereof.

No. 674 A.—On a high ridge, between Nos. 674 and 675. Cultivated land on both sides of line.

No. 676 A.—On the easterly side of a highway, crossing the line between monuments 676 and 677.

No. 678 A.—In cleared land, on high ground, between 678 and 679.

No. 679 A.—On summit of a rocky ridge, in second growth timber, between monuments 679 and 680.

* Where soft marshy ground was encountered, the hole was excavated to a sufficient depth to secure a solid foundation; where ledge rock occurred, all loose material was removed, and the site washed and roughened, in order to secure a proper bond.

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No. 695 A.—On the west side of the north section of the Clinton Mills road, between numbers 695 and 696.

No. 699 A.—On the west side of the Churubusco road, about five hundred and seventy feet east of No. 700.

No. 706 A.—On the east side of McCann's road, between 706 and 707.

No. 722 A.—On the west side of Jamieson's road.

No. 727 A.—On a sand knoll just east of the easterly limit of the right of way of the Mohawk and Malone branch of the New York Central Railway.

No. 751 A.—On the westerly limit of the right of way of the Grand Trunk Railway.

All new monuments were placed on the line joining the two nearest original monuments.

Where deflection angles occurred, the original monuments were placed diagonally, and in the original notes were called angular monuments. In accordance with your instructions, the new monuments were placed at right angles to the line.

Monument No. 734, previously referred, was not rebuilt. No. 754, which originally stood in the centre of the main street of Dundee, was erected eleven and forty-eight hundredths feet west of the bottom of the old monument, which was left in place. No. 770, formerly on the east bank of St. Regis river, was placed about ten feet east of the highway, which runs nearly parallel to the river, a short distance back from the east bank.

Monument 774, which formerly stood on the bank of the St. Lawrence river, has been carried away by erosion. The new monument was erected about 100 feet east of the present bank.

In those cases where, as previously explained, two monuments had been set on line, to indicate an astronomical station, we did not consider it necessary to place more than one new granite monument.

Monument No. 645, in the Richelieu river, was rebuilt in October at the close of our season's work. We measured easterly from No. 646, the distance given in the original notes, and found the stone foundation referred to in the report of the survey of 1845.

Owing to the fact that water covered the site to a depth of two feet, we constructed a cofferdam six feet square. A hole three feet square was excavated nine feet below the surface of the water before we obtained a solid foundation.

The concrete was carried up to within six inches of the surface of the water before the monument was placed thereon. The base was constructed in the same manner as that of the other monuments, and when completed its top projected six inches above the surface of the water. The space between the base and the cofferdam was filled with gravel well rammed.

The other branch of the work—the survey—was conducted in the following manner:—

This section of the boundary line, as located under the Treaty of Washington, consists of a series of tangents of different lengths, and of deflection angles irregular as to direction and magnitude. As the line passes through an inhabited country, and at many points buildings and orchards are on and along the line, it was imperative that we should place our survey lines near the boundary, and have as few tangents as possible, in which we were fairly successful.

Thus we were compelled to adopt a system of survey which consisted of a succession of straight lines of different courses, and in order to secure the best possible results as regards azimuth especially, these lines were so placed as to obtain the maximum length without departing materially from the original line.

When organized, our survey party consisted of the following:—

| | |
|------------------------------|---|
| Assistant surveyors. | 1 |
| Chainmen. | 4 |
| Axemen. | 5 |

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Office computations, based on the original notes, determined the position and direction of our tangents or transit lines. On the ground these lines were run in accordance with modern precision methods. The position of each monument was referred rectangularly to our transit line. Two independent measurements were made with narrow steel tapes. The leading chainman used a tape sixty-six feet long, and recorded the distance from monument to monument only; the check chainmen used a tape one hundred feet long, and continued their measuring throughout, noting the distance to each monument, and leaving marked stakes at hundred-foot intervals. Temperatures were recorded, and every care exercised in carrying on this part of the work. Where differences between the two recorded distances were appreciable new measurements were made.

The copy of the original notes which accompanied our instructions aided us materially in carrying on the work. As the survey progressed, it was found that the alignment of the original monuments between the diagonal monuments or deflection points was good, although errors were found in the deflection angles given in the notes.

It was a matter of current report that certain monuments, namely, Nos. 659, 719, 721 and 743 had been moved from their original positions by unauthorized persons. Our survey showed, however, that the first of these was only 4½ inches from the true line, and No. 719 was exactly on line. Nos. 721 and 743 proved to be 3·39 feet and 4·41 feet, respectively, off line. No. 743 also was found to have been moved easterly a distance of 53·81 feet, and, as will be seen from the notes we have given of our examination of the monuments, was completely loose in the hole, and turned partly round. The discrepancies in the positions of these two monuments were much greater than any others found, and far beyond the range of accidental error of line running or monument setting in the original survey. Our survey shows the probable error of the placing of an original monument to be not more than two or three inches. This was considered by us to be corroborative of the rumoured displacement, and we set the new monuments on the true line: No. 721, 3·39 feet, and No. 743, 4·41 feet south of where we found the old posts. No. 743 was also moved westerly 53·81 feet.

The astronomical observations, consisting of the determining of the azimuths of the transit lines, and of the latitude of certain points, were unavoidably delayed until the latter part of the season. Most unfavourable climatic conditions were encountered, and only about one-half of the necessary observations were secured. Azimuth station No. 5, near the Churbusco road, marked the westerly termination of this work. The report in connection therewith will be made when observations are completed.

Field notes of our survey in duplicate will be elaborated during the winter season and submitted for your approval.

H. P. WILLIS,

Representing the Commission for State of New York.

C. A. BIGGER,

Representing the Commission for Canada.

APPENDIX No. 2.

STATE OF NEW YORK,
OFFICE OF THE STATE ENGINEER AND SURVEYOR,
ALBANY, May 9, 1899.

Boundary Line Monuments.

SURVEYOR-GENERAL,
Department of the Interior, Technical Branch,
Ottawa, Canada.

I beg leave to call your attention to the law relating to the monuments marking the boundary lines of our state, a copy of which I inclose. This law requires that an examination and inspection of the boundary line monuments shall be made during the present year, and I earnestly solicit your co-operation with us in such examination and inspection.

We now have an appropriation for this purpose, and would gladly put the necessary party in the field, to co-operate with such persons as are designated by your department, on short notice, if you will let me know what your wishes are in the matter.

EDWARD A. BOND,
State Engineer and Surveyor.

APPENDIX No. 3.

DEPARTMENT OF THE INTERIOR,
TOPOGRAPHICAL SURVEYS BRANCH,
OTTAWA, May 15, 1899.

EDWARD A. BOND, Esq.,
State Engineer and Surveyor,
Albany, N.Y., U.S.A.

I have the honour to acknowledge the receipt of your letter of the 9th instant, inviting the co-operation of our government in the examination and inspection of the monuments marking the boundary line between Canada and the state of New York. I have submitted your invitation for instructions, and will advise you later.

E. DEVILLE,
Surveyor-General.

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APPENDIX No. 4.

STATE OF NEW YORK,
OFFICE OF THE STATE ENGINEER AND SURVEYOR,
ALBANY, March 2, 1900.

Hon. E. DEVILLE,
Surveyor-General, Dept. of Interior,
Topographic Survey Branch, Ottawa, Canada.

From May 15 to June 30, 1899, we held some correspondence in relation to the examination of the monuments marking the boundary line between Canada and the state of New York. Our law stipulates that the State Engineer and Surveyor shall make an examination of the state boundary monuments once in three years. The time has arrived when the monuments between Canada and the state of New York, by the terms of our statute, should be examined.

It would please me very much if a representative of your government could take this matter at the same time, so that each party will know of any defective monuments, and also know of any repairs to monuments that ought to be made.

I shall be very glad if you will take this subject up with the proper parties, and let me know at an early date what the possibilities are of co-operation by your department with ours in this examination.

EDWARD A. BOND,
State Engineer and Surveyor.

APPENDIX No. 5.

*EXTRACT from a Report of the Committee of the Honourable the Privy Council,
approved by His Excellency on the 26th of May, 1900.*

On a report dated 12th May, 1900, from the Acting Minister of the Interior, stating that he has received a communication from the State Engineer and Surveyor of the state of New York, stating that he is required under their law to make every three years an examination of the monuments marking the boundary of his state, and that the time for the periodical examination is at hand, and asking the co-operation of the Government of Canada so far as regards that portion of the state boundary which coincides with the boundary of the Dominion.

The Minister observes with regard to this proposition that it looks to a mere examination of the monuments, and not the repair or replacing of those broken or lost. This last should be out of the power of the state of New York or of Canada, either separately or jointly without an international agreement with the United States. Without power to replace, the examination would appear to be of little service to the Dominion. For this reason, he (the Minister) is unable to recommend compliance with the State Engineer's request.

The Minister would, however, call attention to the general question of which this is a part, namely, the examination, and where necessary, the remarking of the whole of the southern boundary of Canada, wherever it has been surveyed by the various

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commissions appointed for that purpose. The portions of the boundary line which have been so marked are :—

From the St. Croix to the St. Lawrence river, separating the provinces of New Brunswick and Quebec from the states of Maine, New Hampshire, Vermont and New York; this line was surveyed under the Ashburton Treaty of 1842, and marked with cast-iron monuments.

From the Lake of the Woods to the Rocky Mountains (49th parallel), separating Manitoba and the North-west Territories from the states of Minnesota, North Dakota and Montana; surveyed 1872 to 1874 and marked, in part with iron monuments, in part with earth or stone mounds.

From the Rocky Mountains to the Straits of Georgia (49th parallel), separating British Columbia from the states of Montana, Idaho and Washington; surveyed 1859 to 1861, and marked with mounds and iron posts.

As regards all these portions of the line many complaints have been made from time to time of the disappearance of monuments, and the consequent difficulty of determining the exact position of the boundary, while the British Columbia portion of the line was, in November, 1892, the subject of a formal request by the Lieutenant-Governor in Council for not only a re-establishment of lost posts, but also for an additional or supplementary survey, on the ground that the demarcation by the Commissioners was not sufficiently complete for modern requirements.

Again, the boundary line between Ontario and Minnesota, between Lake Superior and Lake of the Woods, has been designated by the Commissioners under the Treaty of Ghent, and by the Ashburton Treaty, by description and maps only, and the line (which in general follows the water communication) has never been marked where it crosses the portages.

The Minister submits that while this question was one of those before the Joint High Commission, it is yet essentially different from the other questions before that Commission, as it involves no cession of territory or relinquishment of rights on either side, but is a matter purely of business arrangement to the mutual advantage of both countries.

The Minister, therefore, recommends that Your Excellency be moved to inform Her Majesty's Government of the desire of the Government of Canada to join with the United States in an examination of their common boundary for the purpose of re-establishing lost monuments and of placing such supplementary monuments as may appear necessary to meet modern requirements.

The committee advise that Your Excellency be moved to transmit a certified copy of this Minute to the Right Honourable the Secretary of State for the Colonies.

All which is respectfully submitted for Your Excellency's approval.

JOHN J. MCGEE,
Clerk of the Privy Council.

APPENDIX No. 6.

STATE OF NEW YORK,
OFFICE OF THE STATE ENGINEER AND SURVEYOR,
ALBANY, October 23, 1900.

New York-Canadian Boundary Monuments.

Hon. JOHN HAY,
Secretary of State,
Washington, D.C.

By the laws of the state of New York, it devolves on the State Engineer and Surveyor to once in three years examine all of the boundary monuments of the state, and

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report to the legislature their condition, and in connection with this work I have had the boundary monuments between Canada and the state of New York examined this past summer.

Of a total of 130 monuments I find only 37 in perfect condition. I find four are missing; 13 are broken, or have pieces broken off; 8 have fallen down; 5 have cracked; 39 have been heaved by action of the frost; 24 lean; that, is, are not plumb. Of these, some of them are firm and others loose.

I would be glad if you would tell me what is best to be done to induce the Canada government to join, either with the government of the United States or with our state, to have these monuments replaced and put in proper and first-class condition.

If your department will take it up with the Canadians, I shall be very glad; but, if not, and they will assent to joining my department in adjusting this matter, we will gladly attend to it.

If I have not addressed the right department, I would appreciate it very much if you would have this letter referred to the proper parties.

EDWARD A. BOND,

State Engineer and Surveyor.

APPENDIX No. 7.

DEPARTMENT OF STATE,

WASHINGTON, October 29, 1900.

EDWARD A. BOND, Esquire,

State Engineer and Surveyor,

Albany, New York.

I have to acknowledge the receipt of your letter of the 23rd instant in relation to the condition of the boundary monuments between the state of New York and the Dominion of Canada.

I have submitted the matter to the British ambassador, with a view to ascertain whether the Canadian government will be willing to join in the replacing and repair of the monuments. As a new survey is not involved but simply the repair of existing monuments, it would not seem to require any new convention, but merely provision on both sides for the joint performance of the work.

JOHN HAY.

APPENDIX No. 8.

EXTRACT from a Report of the Committee of the Honourable the Privy Council, approved by His Excellency on the 5th January, 1901.

The Committee of the Privy Council have had under consideration a copy of a despatch, hereto attached, dated 1st November, 1900, from Her Majesty's Ambassador at Washington, transmitting a copy of a note from the Secretary of State of the United States, inquiring whether the government of Canada is willing to join in having the monuments upon the boundary line between Canada and the state of New York put in proper and first-class condition.

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The Minister of the Interior, to whom the matter was referred, observes that Your Excellency's government has already, by Minute dated 26th May, 1900, expressed its willingness and desire to join with the government of the United States in the examination and repair of monuments upon the boundary between Canada and the United States.

The Minister further states that the occasion for the above mentioned Minute was an invitation on the part of the authorities of the state of New York to the government of Canada to join with them in an examination of the northern boundary of their state, where it abuts upon the province of Quebec. This proposal Your Excellency's advisers declined to accede to, for the reason that the mere examination of the monuments would not serve any very practical end, unless provision were made for the restoration of lost or broken monuments, a matter which could not be dealt with except with the consent and co-operation of the government of the United States.

The Minister further states that this objection is not set aside by the note of the United States Secretary of State. Although the note indicates the agreement of the United States as regards only a small part of the work proposed by Your Excellency's government, and a more extended agreement would be more satisfactory, he is of the opinion that concurrence in the limited proposal is in the public interest.

The Minister further observes that it appears that of 130 monuments originally placed on the New York boundary, 37 are now in first-class condition, whereas in 1890 an examination of this line by an officer of the Department of the Interior showed 51. The rapid deterioration of the monuments thus apparently not only calls for early action towards their restoration, but also indicates the probable condition of the monuments on the prolongation eastward of this line, north of the states of Vermont, New Hampshire and Maine, and suggests the advisability of action there also.

The committee, on the recommendation of the Minister of the Interior, advise that Your Excellency be moved to inform Her Majesty's Ambassador at Washington that the government of Canada is willing to join with the government of the United States in the examination and restoration where necessary of the monuments along the line between the province of Quebec and the state of New York, but desires to suggest that the scope of the proposed joint operations be enlarged so as to cover the whole of the boundary line, which was marked under the Webster-Ashburton Treaty, from the St. Lawrence to the St. Croix river.

All which is respectfully submitted for Your Excellency's approval.

JOHN J. MCGEE,

Clerk of the Privy Council.

APPENDIX No. 9.

STATE OF NEW YORK,
EXECUTIVE CHAMBER,
ALBANY, August 5, 1901.

Hon. E. A. BOND,
State Engineer,
Albany, N.Y.

The inclosed letter from the Department of State at Washington is forwarded to you for your information.

B. B. ODELL, JR.

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APPENDIX No. 10.

DEPARTMENT OF STATE,

WASHINGTON, August 3, 1901.

His Excellency,

The Governor of New York,
Albany.

I have the honour to acknowledge the receipt of your letter of the 23rd ultimo, inclosing one to yourself from the State Engineer of New York, requesting to be put in direct communication with the proper officials of the government of the Dominion of Canada, for the purpose of undertaking at once, conjointly with them, the placing of new monuments to mark the boundary between the state and the Dominion.

As Mr. Bond is aware, the department submitted to the British embassy his suggestion, that this matter be undertaken now without first waiting until the states of Vermont, New Hampshire and Maine should also have agreed to mark anew their respective boundaries with Canada. To that note no reply has yet been received; and until a favourable answer is given, this department thinks it is hardly in a position to bring the engineers of New York and Canada into direct communication for the purpose stated. But it will be glad to do so when the proper time shall have arrived.

ALVEY A. ADEE,

Acting Secretary.

APPENDIX No. 11.

EXTRACT from a Report of the Committee of the Honourable the Privy Council, approved by His Excellency on the 16th August, 1901.

The Committee of the Privy Council have had under consideration a despatch, hereto attached, dated July 17, 1901 from His Majesty's Chargé d'Affaires at Washington, transmitting a copy of a note from the Secretary of State of the United States having reference to the condition of the monuments on the boundary between Canada and the state of New York, and suggesting that in view of the simplicity of the task of executing the necessary repairs, these would be carried out by the direct co-operation of the Department of the Interior of Canada with that of the Engineer of the state of New York, without awaiting the conclusion of any future agreement between His Majesty's government and the United States government for the more effective demarcation of the frontier.

The Minister of the Interior, to whom the said despatch was referred, submits that the proposed co-operation with the state of New York, with the concurrence of the government of the United States, is quite in accord with the views expressed by His Excellency's advisers in the Minutes of the Council of the 26th May, 1900, and 5th January, 1901, although the scope of the proposed operations is restricted to the limits of the state of New York, and, as set forth in these Minutes, an inquiry into the condition of the whole land boundary between the United States and Canada is to be desired.

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The Committee advise that His Excellency be moved to inform His Majesty's Chargé d'Affaires at Washington of the concurrence of the government of Canada with the proposal of the Secretary of State of the United States, it being understood that the agreement to the proposed co-operation is without prejudice to any further agreement between the two governments for the more effective demarcation of the existing treaty boundary in that quarter, and that, while each government shall pay the expenses of its Commissioner and surveyors, the actual cost of repairs shall be equally divided.

All which is respectfully submitted for His Excellency's approval.

JOHN J. MCGEE,
Clerk of the Privy Council.

APPENDIX No. 12.

Mr. Lowther to Lord Minto.

BRITISH EMBASSY,
NEWPORT, R.I., July 17, 1901.

His Excellency,
The EARL OF MINTO, G.C.M.G.

With reference to Lord Pauncefote's despatch, No. 3, of January 12 last, I have the honour to transmit to Your Excellency herewith a copy of a further note from the United States government, drawing attention to the danger of the obliteration of the boundary between Canada and the state of New York through the dilapidation of the monuments, and suggesting that, in view of the simplicity of the task of executing the necessary repairs, it should be carried out by the direct co-operation of the Department of the Interior of Canada with that of the Engineer of the state of New York, without awaiting the conclusion of any further agreement between His Majesty's government and the United States government for the more effective demarcation of the frontier, such as that which, it is hoped, may result from the survey suggested by the latter last January and communicated to Your Excellency in Lord Pauncefote's despatch No. 13.

I should be grateful if Your Excellency would be good enough to inform me what answer I should return to the proposal of the United States government.

GERARD LOWTHER.

APPENDIX No. 13.

DEPARTMENT OF STATE,
WASHINGTON, July 15, 1901.

Mr. GERARD A. LOWTHER.

I have the honour to inform you that the department is in receipt of a letter from the Governor of New York, dated the 14th ultimo, in which he says that the State Engineer has called his attention to correspondence that the latter has had with the Department of the Interior of the Dominion of Canada in relation to replacing and repairing the monuments that mark the boundary line between the state of New York

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and the Dominion of Canada. The State Engineer informs the Governor that the monuments are in such a fragile and broken condition that unless they are replaced very soon by more permanent ones the boundary line may be lost.

The Governor requests that the matter may be brought to the attention of the British Ambassador, with a view to having early action taken to repair and replace the dilapidated monuments.

In this connection I beg to recall to your attention the proposal contained in the department's note to Lord Pauncefote of October 29, 1900.

While the department still adheres to the view expressed in its note of January 29, 1901, in which it is gratified to see that the Government of the Dominion of Canada shares, that a general survey of the whole land and water boundary between the two countries, with a view to replacing lost monuments and erecting new ones, as well as determining by buoys or ranges, or both, the water boundaries in the narrow lake channels, is most desirable, the question presented on the New York boundary is of so simple a nature that it is conceived that no difficulty will be found in carrying out, forthwith, the suggestion of the Governor of the state. There is no question of settling any dispute arising from the total disappearance of old monuments or the insufficient marking of the line by the treaty Commissioners. It is merely a matter of repairing existing line marks, as to the situation of which no question or doubt can arise.

It is not thought that an international convention would be necessary to provide for painting iron monuments, cementing the defective masonry of stone monuments, restoring inscriptions obliterated by exposure to the elements, or, in short, executing all such mere repairs as may be needful to enable the line marks to subserve the purpose for which they were set up. All this can be done by the joint action of the appropriate agents of the Engineer's Department of the state of New York and of the Department of the Interior of Canada, without prejudice to any future agreement between the two governments for the more effective demarcation—if need be—of the existing treaty boundary in that quarter.

It is hoped that an early and favourable consideration may be given to this proposal.

JOHN HAY.

APPENDIX No. 14.

Lord Pauncefote to Lord Minto.

BRITISH EMBASSY,

WASHINGTON, January 12, 1901.

His Excellency

THE EARL OF MINTO, G.C.M.G.,

The Governor General.

I have the honour to acknowledge the receipt of Your Excellency's despatch, No. 6, of the 9th instant, inclosing a copy of an approved Minute of the Privy Council for Canada, intimating the willingness of the Canadian government to join with the government of the United States in the examination and restoration, where necessary, of the monuments along the line between the province of Quebec and the state of New York, but suggesting the extension of the proposed joint operations so as to include the whole of the boundary line marked under the Webster-Ashburton Treaty, from the St. Lawrence to the St. Croix river.

I have forwarded the Minute to the United States government, with the request that I may be informed of their views on the suggestion therein contained for communication to Your Excellency.

PAUNCEFOTE.

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APPENDIX No. 15.

STATE OF NEW YORK,
EXECUTIVE CHAMBER,
ALBANY, September 2, 1901.

Hon. E. A. BOND,
State Engineer,
Albany, N.Y.

I am directed by the Governor to refer the inclosed communication to you for your consideration.

JAS. G. GRAHAM,
Secretary to the Governor.

APPENDIX No. 16.

DEPARTMENT OF STATE,
WASHINGTON, August 30, 1901.

His Excellency
The Governor of New York,
Albany.

Referring to your letter of the 23rd ultimo, I have now the honour to inform you that on the 25th instant the British Chargé d'Affaires *ad interim* advised me that the Privy Council of Canada concurred in your proposal that the restoration of defective monuments marking the boundary between New York and Canada be proceeded with under the joint direction of the state engineer of New York and the Canadian Department of the Interior, without awaiting the conclusion of a more formal agreement between this government and that of Great Britain.

The Canadian government wishes it to be understood, however, that this agreement is without prejudice to any further measures which may be taken for the demarcation of the boundary between the two countries, and that, while each government shall pay the expenses of its Commissioner and surveyors, the actual cost of restoring the monuments shall be equally divided.

I would now request you to put the state engineer of New York in direct communication with the Canadian Department of the Interior.

ALVEY A. ADEE,
Acting Secretary.

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APPENDIX No. 17.

STATE OF NEW YORK,
OFFICE OF THE STATE ENGINEER AND SURVEYOR,
ALBANY, September 4, 1901.

Hon. B. B. ODELL, Jr.,
Governor, State of New York,
Albany, N.Y.

I am in receipt of your letter of September 2, inclosing a letter from Hon. Alvey A. Adeë, acting secretary, in relation to the examination and repair of boundary monuments between New York and Canada, and have taken up the subject with the Canadian Department of the Interior, as suggested in Mr. Adeë's letter.

EDWARD A. BOND,
State Engineer and Surveyor.

APPENDIX No. 18.

STATE OF NEW YORK,
OFFICE OF THE STATE ENGINEER AND SURVEYOR,
ALBANY, September 4, 1901.

Examination and Repair of Boundary Line Monuments.

Hon. E. DEVILLE,
Surveyor-General, Department of the Interior,
Ottawa, Canada.

You will doubtless recall some correspondence which we had recently with relation to the examination and repair of monuments marking the boundary line between the Dominion of Canada and the state of New York.

During the present year the matter has been the subject of correspondence between the Governor of this state, the Secretary of State at Washington and the representatives of your government, and I am now in receipt of a letter under date of August 30, 1901, from Hon. Alvey A. Adeë, Acting Secretary of State (a copy of which is herewith inclosed) transmitted to me by Governor Odell.

In accordance with the suggestion contained in the letter above mentioned, I have the honour to call your attention to this matter, hoping that arrangements can be perfected so that the examination and repair of these monuments can be made at as early a date as possible, especially in view of the fact that the season in which outdoor work can be conducted is now rapidly drawing to a close.

My understanding is that each government shall pay the expenses of its engineers, while the actual cost of restoring the monuments shall be equally divided between the two governments.

In 1900 an agreement was entered into between the State of New York and the State of Pennsylvania for the examination and repair of monuments between the two states on similar terms, and in view of the fact I take the liberty of inclosing herewith a copy of that agreement, as I believe with such modifications as might be made

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necessary in paragraph 2 the general form of the agreement would cover the work contemplated in reference to the boundary line monuments between Canada and New York. I offer this merely as a suggestion, however, and will be glad to arrange the matter in such way as you desire either by formal agreement or by exchange of letters.

Awaiting your reply.

EDWARD A. BOND,

State Engineer and Surveyor.

APPENDIX No. 19.

EXTRACT from a Report of the Committee of the Honourable the Privy Council, approved by His Excellency on the 28th September, 1901.

On a report dated 17th September, 1901, from the Minister of the Interior, submitting with reference to the proposal that the government of Canada should join with that of the state of New York in an examination of their common boundary, with a view to the restoration of destroyed or damaged monuments, that a communication has recently been received from the State Engineer and Surveyor of the State of New York, proposing that a formal working agreement as to the details of the work and a division of the expenses be entered into between the governments of Canada and the state of New York, or by officials designated by those governments; he submits, as a convenient form of agreement, the agreement entered into for a like purpose in the year 1900 between the states of New York and Pennsylvania.

The Minister, seeing no objection to an agreement of the character proposed, recommends that Mr. W. F. King, the Chief Astronomer of the Department of the Interior, who is familiar with this question, be appointed commissioner to act with the officer who may be delegated by the State of New York, with authority to enter into an agreement of the character above mentioned, and to make arrangements for the commencement of field operations before autumn is too far advanced.

The committee submit the same for His Excellency's approval.

JOHN J. MCGEE,

Clerk of the Privy Council.

APPENDIX No. 20.

BRITISH EMBASSY,

NEWPORT, R.I., September 2, 1901.

His Excellency,

The EARL OF MINTO, G.C.M.G.,

The Governor General.

With reference to Your Excellency's despatch, No. 70, of the 20th ultimo, I have the honour to transmit herewith a copy of a note I have received from the United States government.

Mr. Adee states that he has made known to the government of New York the assent of Your Excellency's government to the proposal that the restoration of the

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monuments on the boundary between New York and Canada be undertaken without awaiting the conclusion of a formal agreement between the governments of Great Britain and the United States, and Mr. Adeë adds that he has asked the Governor to put the Engineer of the state in communication with the Canadian Department of the Interior.

GERARD LOWTHER.

APPENDIX No. 21.

DEPARTMENT OF STATE,

WASHINGTON, August 30, 1901.

Mr. GERARD LOWTHER.

I have the honour to acknowledge with gratification the receipt of your note, No. 232, of the 25th instant, informing me of the assent of the Canadian government to the proposal of the Governor of New York that the restoration of the monuments on the boundary between New York and Canada be undertaken without awaiting the conclusion of a formal agreement between this government and that of Great Britain.

I have made this known to the Governor of New York, and have asked him to put the Engineer of the state in communication with the Canadian Department of the Interior.

ALVEY A. ADEE,

Acting Secretary.

APPENDIX No. 22.

Whereas, by virtue of the provisions of chapter 421, of the Laws of the State of New York, the State Engineer and Surveyor, is authorized and required, during the year 1887, and every third year thereafter, to cause to be made an examination and inspection of the boundary line monuments between that state and other states adjoining, and is further required to make a detailed report of such inspection and examination; and is further authorized and required to co-operate with the proper authorities of such adjoining states, in the examination and inspection and in the restoring and replacing of boundary line monuments, where they need to be restored or replaced, and is clothed with full authority to represent the state of New York in co-operating with other states in discharging the duties hereinbefore referred to regarding boundary line monuments; and

Whereas, similar duties are imposed upon the Secretary of Internal Affairs of the Commonwealth of Pennsylvania, by the Second section of the Act of the General Assembly, approved May 4, 1889, entitled 'An Act relative to the boundary lines and boundary line monuments,' directing his co-operation with the proper authorities in any of the adjoining states in re-establishing, by surveys, or otherwise, of the boundary lines, the erection of new monuments to mark their location, the repairing, resetting, or renewing of the old monuments when found necessary; and by virtue of said Act is fully empowered to represent and act for the Commonwealth of Pennsylvania, by the employment of such means as may be necessary in the premises, when from the

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reports of the county commissioners of said commonwealth or from other information satisfactory to him, it is found there is a necessity for the resurvey and relocation of said boundary lines, in whole or in part, or whenever any of the boundary line monuments are in such condition as to require resetting, replacing or renewing; and

Whereas, by virtue of the laws referred to in the two states named, the said state officers are required to co-operate with each other and act jointly in the examination and inspection, and, when found necessary, in resetting, replacing and renewing of monuments and in the re-establishing of the boundary lines between said states; and

Whereas, it appears from the examinations made in the years 1890 and 1893 that these monuments are displaced, in whole or in part, frequently by the action of frost, floods and by other causes, making their frequent examinations desirable to the end that they may be maintained in their proper position and condition; and it appearing that the welfare of the two states named will be conserved by examination and inspection of said boundary line monuments during the present year, and by virtue of the duties imposed upon the officers named by the respective states, as appears from the enactments in part recited; therefore,

It is agreed, by and between the undersigned, acting in conformity with the authority conferred, as hereinbefore stated, that L. K. Davendorf, representing the State of New York, under appointment made by Edward A. Bond, State Engineer and Surveyor of the state of New York, and J. Hermon Terry, representing the state of Pennsylvania, under appointment made by James W. Latta, Secretary of Internal Affairs of the said state of Pennsylvania, shall be empowered, and by these presents are hereby empowered, to cause to be repaired, reset and replaced any of the said boundary line monuments, which in their judgment may need to be so repaired, reset or replaced; and

It is further agreed that the parties herein named shall have full authority to represent the respective states in the discharge of the duties herein imposed, limiting the scope of their authority, however, to the examination of the boundary line monuments between the two states, and to the replacing and repairing of such monuments as in their opinion should be replaced, reset or repaired, and to the furnishing and setting of the new monuments where the old ones are so far mutilated and destroyed as to render them unserviceable; it being understood that in case the examination and inspection to be made shall disclose the fact that there is a necessity for the resurveying of any part of the said boundary line for the purpose of determining its location, the engineers appointed as aforesaid shall have no authority to make such survey until they shall have first reported the conditions to the parties hereto, which conditions in their opinion render such a resurvey a necessity, nor until written authority signed by both of the parties hereto shall be given them authorizing such resurvey; and

It is further agreed that the engineers herein referred to, and appointed under the authority mentioned, shall proceed at once to the discharge of the duties as set forth, and shall diligently prosecute the work of examination and inspection and the discharge of the other duties to be done and performed, in order that the work shall be completed at as early a date as practicable; and

It is further agreed, that upon the completion of the work provided for in this agreement a full report shall be prepared of their operations, which report shall give in detail the location and condition of each monument, and other interesting data pertaining thereto, as well as a statement of such action as may have been taken in regard to the same, such report to be made in duplicate, each to be signed by both engineers, one to be filed with the State Engineer and Surveyor of the state of New York, at Albany, and the other to be filed with the Secretary of Internal Affairs of the Commonwealth of Pennsylvania, at Harrisburg; and

It is further agreed that the actual expenses incurred in the discharge of the duties herein referred to shall be borne equally by the two states in interest, except so far as may relate to the compensation of the two engineers referred to, which com-

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pensation is to be arranged by each state separately, and that all expenses be accounted for in verified statements, and, so far as practicable, supplemented by receipted vouchers from parties to whom disbursements have been made.

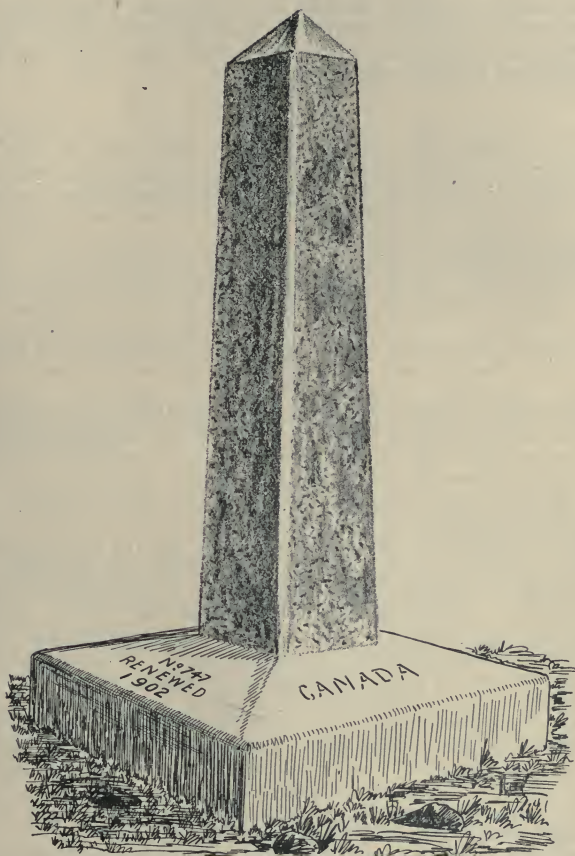
In witness whereof, Edward A. Bond, State Engineer and Surveyor of the state of New York, and James W. Latta, Secretary of Internal Affairs of the Commonwealth of Pennsylvania, have hereunto set their hands and caused the seals of their respective departments to be hereunto affixed, the 11th day of June, 1900.

EDWARD A. BOND,

State Engineer and Surveyor.

JAMES W. LATTA,

Secretary of Internal Affairs.



BOUNDARY MONUMENTS.

REPORT OF C. A. BIGGER.

OTTAWA, May 6, 1904.

WILLIAM F. KING, Esq.,

Chief Astronomer, Department of the Interior,
Commissioner for Canada.

HON. EDWARD A. BOND,

State Engineer and Surveyor,
Commissioner for the State of New York.

SIRS,—The astronomical observations determining the azimuth and latitude of the east and west line between the province of Quebec, Dominion of Canada, and the state of New York, one of the United States of America, were commenced on June 20, 1902,

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and completed on June 6, 1903. Five stations were occupied in 1902 and four in 1903. The stations are numbered consecutively from station 1 (Fairbanks) near the Richelieu river, west to station 9 (Hollinbeck) about five and one-ninth miles east of the St. Lawrence river, the western terminus of the line. This work forms part of the re-survey and renewal of monuments of 1902.

AZIMUTH.

As stated in a former report, dated January 10, 1903, signed by Mr. Willis and the writer, the survey of 1902 consisted of a series of transit lines placed as near the boundary as possible. Points were located on these lines opposite the monuments and the distances between were measured along the transit lines and the offsets to each monument duly recorded in the field notes.

The numerous deflection angles in the boundary so limited the length of the transit lines that it was considered that three or four sets of azimuth observations on each line would determine the astronomical direction with a sufficient degree of precision.

The observations were made with an altazimuth instrument by Troughton and Simms, of London, England, more particularly described in the latter part of this report.

During the season of 1902 the instrument was mounted on its own stand, placed upon three posts in the ground, and during the summer the ordinary direction method of observing was used. In 1903 the transit was placed upon a cylindrical hollow wooden pier, five feet long, sixteen inches in diameter, having a ten-inch core of dry sand. The pier was set solidly in the ground, projecting two feet three inches above the surface, and proved as satisfactory as a masonry pedestal.

The method of observing adopted in the autumn of 1902 and used throughout 1903, is a combination of the micrometric and direction methods. In a partially timbered country the placing of a reference object under the star at elongation for micrometric work is impracticable. A desire to secure the benefits of the extreme accuracy of that method led to the arrangement (by the writer) of the combination observation adopted. The results have been highly satisfactory, as the differences between the sets are well within the probable errors of graduation of azimuth circles.

A set consists of twenty readings of the telescope micrometer on the reference object on the line, and twenty on the star, together with twenty readings of each of the two azimuth circle micrometers when the telescope is pointed to the reference object, and the same number of readings when pointed to the star in each position of the instrument, the telescope being turned one hundred and eighty degrees in azimuth in the middle of the set. The observations for station seven, and their computation are given in full and will exhibit the method in detail.*

The average time occupied by the readings on the star in the two positions of the telescope is seven minutes. The whole set is usually completed in twenty-five or thirty minutes. The limiting of the time of the star pointings and level readings is of material benefit and the arrangement of the observation admits of careful and deliberate readings of the azimuth circle micrometers.

It was noticed that the best results were obtained when the reference object was less than four thousand feet from the instrument. The slight irregularities of the different sets appeared to be largely due to refraction notably at station 8 (Stark), where a fire in the turf to windward of the line materially influenced the record of the night's work.

The most favourable conditions were obtained at stations 4 (page 59) and 6 (page 61), the line of sight at those stations being some distance above the surface between the instrument and the reference object. The results are significant; the probable error of the mean azimuth at station 5 was $0''14$ and at station 6, $0''32$, although only three sets were observed at the former, and four at the latter station.

*Not printed.

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The transit line through station 8 (Stark), terminates at monument 752. The line from there to the St. Lawrence passes through azimuth station 9 (Hollinbeck). These transit lines were connected by offsets at monument 752. The Hollinbeck observations and those of Stark were thus compared, exhibiting a difference of only four seconds of arc, showing a satisfactory degree of precision in the projecting of the transit lines, as the two astronomical stations are nearly ten miles apart.

The astronomical azimuths of all the transit lines were determined, and with the aid of the offsets from these lines to the monuments and the distances between, the azimuth and back azimuth from north through east from monument to monument have been computed and are entered in columns two and three, pages 54 to 57, of the tabulated results.

A synopsis of the observations for azimuth at stations two to nine inclusive, will be found on pages 14, 15, 16, 17, 20, 21 34 and 35; also the observation and computation sheets for station seven, Trout river, on pages 22 to 31 inclusive.* The chronometer error was ascertained by observing time or equatorial stars in the vertical Polaris, as illustrated fully on pages 32 and 33.*

LATITUDE.

After careful consideration of the topographical features of the country, three latitude stations were selected: Fairbanks, Connelly and Hollinbeck, numbered respectively, one, five and six.

FAIRBANKS.

This station is about 6,800 feet west of the Richelieu river, on a slight elevation (nearly opposite the residence of Mr. C. S. Fairbanks), about 120 feet above mean sea level. The instrument was placed upon the boundary line and no permanent mark left, but its exact position is noted on page 58, the sheet of observations.

The land around the station is comparatively level, but important physical features, described in the discussion of results exist to the south and east. To the west along the line the altitude increases gradually for twenty miles, the culminating point being Covey Hill, about 1,100 feet above sea level. From Covey Hill north the land falls away rapidly to the general level of the valley of the St. Lawrence, about 170 feet above sea level. Two hundred and sixteen circummeridian observations on twenty-six fundamental stars, determined the latitude of this station within $0''12$. The programme and mean results are on page 58.

CONNELLY.

In the schedule of results this is astronomical station number five. It is about sixteen miles west of Fairbanks, and four miles east of Covey Hill, and about 500 feet above sea level. Two hundred and thirty-eight observations on thirty fundamental stars were made at this station. The stars observed and the resultant latitudes are on pages 60 and 61.

HOLLINBECK.

This is the most westerly latitude station occupied. It is in low-lying, undulating country five and one-tenth miles east of the St. Lawrence river. The latitude was determined by 285 circummeridian observations on thirty-six fundamental stars, the probable error of the mean result being $0''12$. The programme of stars and the mean results are on page 64.

DISCUSSION.

A small map of the country surrounding the latitude stations on the east and west line, between the province of Quebec and the state of New York accompanies this

*Not printed.
25—ix—4½

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report. It shows the prominent physical features likely to influence the results at the different stations occupied. The map is drawn to a scale, so that the relative distances are apparent. The thousand-foot contour line is in yellow, the two thousand in violet, and the three thousand in red. Two isolated peaks, Mansfield and Camel's Hump, are over 4,000 feet above sea level, the former forty-two and one-half and the latter fifty-three and six-tenths miles distant, to the southeast of Fairbanks. Dannemora and Mount Lyon are twenty-one and thirty-three miles respectively distant, to the southwest of Fairbanks.

The Green Mountains to the northeast, east and southeast are much farther away than the Adirondacks, but as the protruding mass of the former is of much greater area than that of the latter, it is reasonable to suppose that the gravity disturbance due to these ranges is about equally distributed.

This may be true, but as the influence of the Green Mountains is in a longitudinal direction, the observed latitude of Fairbanks is, no doubt, affected by the Adirondacks to the south and southwest, and that the observations at this station would place the forty-fifth parallel of latitude farther south than it should be. There are also several isolated mountains to the northeast, north and northwest, which would have an appreciable influence upon the observations.

According to the United States Coast and Geodetic reports, the geodetic latitude of the Rouse's Point station is about four seconds less than the observed latitude.

In 1845 the latitude of monument number 646 was determined by Major Graham, his station being fourteen hundred and eighty-nine feet south of the monument. In 1874 an officer of the United States Coast and Geodetic Survey observed for latitude near Major Graham's station, and connected therewith; the three determinations of the latitude of monument 646 are as follows:—

| | |
|-----------------------------------|-----------------|
| 1845—Major Graham | 45° 00' 42'' 85 |
| 1874—U. S. C. and G. Survey | 45° 00' 41'' 96 |
| 1903—C. A. Bigger | 45° 00' 42'' 51 |

At the next station to the west of Fairbanks (Connelly) the full effect of the Adirondacks made itself apparent, to the extent of nearly four seconds of arc. At Hollinbeck, near the St. Lawrence, the observed latitude placed the forty-fifth parallel 0' 73 nearer its true position than at Fairbanks.

In column seven of the schedule of results the latitude of Fairbanks has been carried through the deflection angles to the St. Lawrence river. Column eight gives the probable astronomical latitude throughout according to the present observations. The computations were made in the office during the winter of 1903-1904, so that prior to that time the writer was unable to make comparisons. It appears that a better location of the line would be obtained by occupying at least two more latitude stations. The writer would suggest monuments 700 and 730.

DESCRIPTION OF INSTRUMENT.

The latitude and azimuth observations were made with an altazimuth instrument constructed by Troughton and Simms, of London, England, in 1901. The azimuth and altitude circles are twelve inches in diameter, divided into five minute spaces and read to single seconds by micrometer microscopes one hundred and eighty degrees apart. The telescope has an objective of three inches aperture and nineteen inches focal length, the eye-piece used in stellar work having a magnification of forty-five diameters. It is furnished with a revolving eye-piece micrometer, which can be fixed against opposing blocks, in position for reading azimuth angles or zenith distances. The drum is divided into one hundred parts, and one revolution has a value of about 110'' 5. This latter was determined in the usual manner by observing circumpolar stars at their elongation. The latitude level by Pessler had a value of 1'' 06 for a division 2 mm. long, and was of very even construction.

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In determining latitude, this instrument may be used as a zenith telescope, observing by the Talcott method, measuring the small difference of meridional zenith distances of two stars culminating upon opposite sides of the zenith, at nearly the same time.

On account of the compactness of the instrument, and the extreme rigidity of the parts, the Chief Astronomer was of the opinion that the circummeridian method of observing for latitude might be adopted advantageously. It is hardly necessary for the writer to refer to the well known advantages of this latter method over the former.

In selecting a programme for zenith distance observing it becomes necessary to use the ordinary star catalogues introducing an element of uncertainty to be avoided if possible.

A circummeridian programme may be composed entirely of fundamental stars observing alternately upon both sides of the zenith, and balancing the altitudes so that the effect of errors in the circle graduations may be annulled.

In 1902 the writer observed for latitude at Three Rivers, in the province of Quebec, making use of both methods; and found that by observing ten pairs of stars by circummeridian altitudes he secured a determination with a probable error of only $0''13$; less than might be expected from a much larger number of stars by the Talcott method.

At Hollinbeck (page 64) seventeen pairs of stars were observed in one night, with a probable error of only $0''13$. In view of the above it may be accepted as conclusive, that the instrument used on this work is especially adapted to this method of observing for latitude.

The results of the observations for azimuth were equally satisfactory. Plate I. shows the instrument.

I have the honour to be, sir,

Your obedient servant,

(Sgd.) C. A. BIGGER.

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| Monuments. | Azimuth from North through East. | Back Azimuth. | Distance in feet 1902. | Measure-ment of 1845. | Measure-ment of 1851. | Latitude of first mentioned monument derived from Fairbanks and Connelly Station. | Latitude derived from Fairbanks and Connelly Combined. | Number of deflection angle monument. | Deflection angle 1902. | Deflection angle 1845. |
|------------|----------------------------------|---------------|------------------------|-----------------------|-----------------------|---|--|--------------------------------------|------------------------|------------------------|
| | ° ' " | ° ' " | ft. | ft. | ft. | ° ' " | ° ' " | | ° ' " | ° ' " |
| 645 to 646 | 268 50 22.0 | 88 59 05.1 | 1723.00 | 1736.5 | 1723.0 | 45 00 42.80 | 45 00 41.13 | | | |
| 646 " 647 | 268 58 20.9 | 88 57 47.3 | 3410.12 | 3386.5 | 3402. | 42 51 | 40 20 | | | |
| 647 " 648 | 269 00 41.3 | 89 00 35.2 | 1332.15 | 1324. | 1327. | 41 90 | 39 80 | | | |
| 648 " 649 | 268 58 12.8 | 88 57 38.3 | 3811.27 | 3805. | 3708.5 | 41 68 | 40 40 | 649 | Left 25 21.42 | 25 20 |
| 649 " 650 | 268 33 28.0 | 88 30 04.3 | 2403.12 | 2399.5 | 2397.5 | 41 00 | 39 89 | | | |
| 650 " 650A | 268 31 13.9 | 88 30 51.1 | 2012.11 | 3592. | 3586.25 | 40 40 | 39 85 | | | |
| 650A " 651 | 268 31 10.8 | 88 30 55.2 | 1583.75 | 3592. | 3586.25 | 40 40 | 39 85 | | | |
| 651 " 651A | 268 33 13.7 | 88 33 04.5 | 328.71 | 3501. | 3497.5 | 39 48 | 39 06 | | | |
| 651A " 652 | 268 30 14.2 | 88 29 48.8 | 2578.19 | 2655.06 | 3378. | 38 58 | 38 09 | 652 | Left 20 25.55 | 20 00 |
| 652 " 652A | 268 10 00.2 | 88 09 34.0 | 2655.06 | 3378. | 3373.0 | 37 74 | 37 45 | | | |
| 652A " 653 | 268 11 57.8 | 88 11 48.6 | 927.67 | 3378. | 2862.5 | 37 45 | 36 55 | | | |
| 653 " 654 | 268 09 12.7 | 88 08 44.5 | 2870.59 | 2868. | 1943.25 | 36 55 | 35 92 | | | |
| 654 " 655 | 268 09 47.7 | 88 08 28.6 | 1950.21 | 1950. | 2963.5 | 35 92 | 35 94 | | | |
| 655 " 656 | 268 08 48.0 | 88 08 18.8 | 2971.01 | 2966.5 | 2586.0 | 34 97 | 33 98 | 656 | Left 21 25.15 | 20 30 |
| 656 " 657 | 267 47 29.2 | 87 47 03.7 | 2590.95 | 2586.5 | 2586.0 | 34 97 | 35 05 | | | |
| 657 " 657A | 267 46 23.6 | 87 46 16.0 | 768.03 | 2638.5 | 2640.5 | 33 98 | 34 78 | | | |
| 657A " 658 | 267 46 00.0 | 87 45 52.4 | 1874.95 | 2638.5 | 3641.5 | 33 68 | 34 13 | | | |
| 658 " 659 | 267 29 13.6 | 87 28 37.7 | 3650.06 | 3644.5 | 2857.25 | 32 96 | 32 69 | 658 | Left 16 47.64 | 17 10 |
| 659 " 660 | 267 29 21.8 | 87 28 53.6 | 2865.30 | 2861. | 3014 | 31 38 | 31 56 | | | |
| 660 " 661 | 267 29 31.6 | 87 27 53.5 | 3875.58 | 3870.5 | 3808.0 | 30 14 | 30 02 | | | |
| 661 " 662 | 267 28 51.7 | 87 28 25.9 | 2618.19 | 2616.5 | 2613. | 28 45 | 28 99 | | | |
| 662 " 663 | 267 27 09.3 | 87 26 43.5 | 2625.97 | 2621. | 2619.5 | 27 32 | 27 93 | | | |
| 663 " 663A | 267 25 21.7 | 87 25 02.2 | 1982.65 | 2059. | 2067.25 | 26 16 | 27 14 | | | |
| 663A " 664 | 267 25 01.9 | 87 24 52.2 | 983.30 | 2059. | 2067.25 | 25 29 | 26 73 | | | |
| 664 " 665 | 267 26 14.3 | 87 25 52.1 | 2253.13 | 2250. | 2256. | 24 84 | 25 83 | 665 | Right 18 25.12 | 18 10 |
| 665 " 665A | 267 26 12.5 | 87 25 53.3 | 1946.57 | 3843.5 | 3851.5 | 23 85 | 25 15 | | | |
| 665A " 666 | 267 43 45.5 | 87 43 26.8 | 1903.98 | 2156.5 | 2156.25 | 23 09 | 24 48 | | | |
| 666 " 667 | 267 43 04.2 | 87 43 03.2 | 2158.12 | 2156.5 | 1890. | 22 34 | 23 73 | | | |
| 667 " 668 | 267 46 04.5 | 87 45 45.9 | 1894.30 | 1893. | 1929. | 21 50 | 23 07 | 669 | Left 12 44.24 | 14 02 |
| 668 " 669 | 267 38 38.4 | 87 38 26.4 | 1224.03 | 1924.5 | 2858.25 | 20 77 | 22 62 | | | |
| 669 " 670 | 267 30 29.7 | 87 30 01.6 | 2857.08 | 2852.5 | 3267. | 20 27 | 21 50 | | | |
| 670 " 671 | 267 29 38.4 | 87 29 06.3 | 3264.35 | 3262. | 3097.5 | 19 04 | 20 22 | | | |
| 671 " 672 | 267 28 24.2 | 87 27 53.7 | 3100.68 | 3097.5 | 1749.75 | 16 28 | 18 99 | 673 | Rt. 1 55 26.82 | 1 55 02 |
| 672 " 673 | 267 28 32.9 | 87 27 56.6 | 1752.52 | 1749.5 | 472.0 | 15 52 | 18 30 | | | |
| 673 " 674 | 269 28 02.4 | 89 27 57.7 | 473.49 | 472.0 | 3907. | 15 48 | 18 28 | | | |
| 674 " 675 | 269 28 03.6 | 89 27 45.1 | 2032.39 | 3907. | 3909.5 | 15 26 | 18 14 | | | |
| 675 " 676 | 269 23 03.6 | 89 22 43.6 | 1826.46 | 3907. | 2109. | 15 26 | 18 01 | 675 | Right 43 01.37 | 42 20 |
| 676 " 677 | 270 06 06.8 | 90 05 46.1 | 2107.20 | 2109. | 2112. | 15 06 | 18 01 | | | |

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[illegible]

* From here to foot of page the latitude is derived from Connelly and Hollinbeck combined.

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| Monuments. | Azimuth from North through East. | Back Azimuth. | Distance in feet 1902. | Measure-ment of 1845. | Measure-ment of 1851. | Latitude of first mentioned monument derived from Fairbanks Station. | Latitude derived from Connolly & Hollinbeck. | Number of deflection angle monument | Deflection angle 1902. | Deflection angle 1845. |
|------------|----------------------------------|---------------|------------------------|-----------------------|-----------------------|--|--|-------------------------------------|------------------------|------------------------|
| | ° ' " | ° ' " | ft. | ft. | ft. | ° ' " | ° ' " | | ° ' " | ° ' " |
| 719 to 720 | 267 20 15.5 | 87 20 07.3 | 830.92 | 825. | 820.25 | 34 02 | 35.25 | 720 | Rt. 02 24 53 | 4 03 46 |
| 720 " 721 | 271 24 48.9 | 91 24 26.7 | 2251.54 | 2256. | 2246.75 | 33.64 | 34.85 | | | |
| 721 " 722 | 271 24 41.9 | 91 24 23.2 | 1939.82 | 1896.5 | 1906.50 | 34.19 | 35.36 | 722 | Left 27 16 58 | 27 37 |
| 722 " 722A | 270 56 55.2 | 90 56 33.3 | 2223.14 | | | 34.65 | 35.78 | | | |
| 722A " 723 | 270 56 39.0 | 90 56 20.3 | 1600.64 | 3809.5 | 3822.25 | 35.01 | 36.10 | 723 | Left 15 12 40 | 15 47 |
| 723 " 724 | 270 41 11.5 | 90 40 40.8 | 3117.14 | 3105. | 3117.50 | 35.27 | 36.33 | | | |
| 724 " 725 | 270 40 32.6 | 90 40 02.1 | 3100.73 | 3092.5 | 3100.50 | 35.64 | 36.64 | 725 | Left 21 10 55 | 23 03 |
| 725 " 726 | 270 19 10.6 | 90 18 33.6 | 3751.12 | 3735. | 3751. | 36.00 | 36.95 | | | |
| 726 " 727 | 270 18 28.6 | 90 17 46.4 | 3774.46 | 3764. | 3774. | 36.20 | 37.08 | | | |
| 727 " 727A | 270 17 14.0 | 90 16 54.0 | 2033.37 | | | 36.40 | 37.21 | | | |
| 727A " 728 | 270 19 49.2 | 90 19 32.4 | 1702.00 | 3728. | 3735. | 36.50 | 37.17 | 728 | Left 24 21 63 | 24 12 |
| 728 " 729 | 269 53 13.2 | 89 52 36.7 | 3709.79 | 3697.5 | 3707.25 | 36.59 | 37.33 | | | |
| 729 " 730 | 269 51 35.7 | 89 50 59.3 | 3694.17 | 3682.5 | 3691.75 | 36.52 | 37.19 | 730 | Left 00 12 99 | 00 15 |
| 730 " 731 | 269 50 53.33 | 89 50 13.32 | 4066.01 | 4050.5 | 4059. | 44 59 | 44 59 | | | |
| 731 " 732 | 269 51 17.48 | 89 50 45.44 | 3235.52 | 3248.5 | 3251.5 | 36.31 | 36.83 | | | |
| 732 " 733 | 269 50 06.26 | 89 49 58.78 | 760.54 | 761.0 | 761.25 | 36.22 | 36.68 | | | |
| 733 " 735 | 269 49 12.38 | 89 49 04.90 | 802.78 | 799.5 | 801. | 36.19 | 36.64 | 736 | Left 34 33 52 | 40 20 |
| 735 " 736 | 269 15 16.47 | 89 14 37.43 | 3968.54 | 3960. | 3969. | 36.18 | 36.63 | | | |
| 736 " 737 | 270 44 36.31 | 90 44 11.62 | 2508.82 | 2500.5 | 2505.75 | 35.67 | 36.03 | 737 | Rt. 1 29 58 90 | 1 32 07 |
| 737 " 738 | 270 49 27.19 | 90 48 48.85 | 3897.03 | 3887. | 3895. | 35.98 | 36.29 | 738 | Rt. 3 25 15 53 | 3 25 10 |
| 738 " 739 | 273 82 20.02 | 93 31 56.80 | 2414.40 | 2400. | 2412. | 38.77 | 39.01 | 739 | Left 35 50 78 | 34 10 |
| 739 " 740 | 273 33 12.95 | 93 32 49.45 | 2331.62 | 2382. | 2387. | 40 24 | 40 44 | | | |
| 740 " 741 | 273 18 43.75 | 93 18 17.48 | 2638.71 | 2678. | 2683.75 | 41.70 | 41.85 | 741 | Left 13 32 75 | 14 40 |
| 741 " 742 | 273 18 02.23 | 93 17 36.30 | 2638.53 | 2630. | 2638.75 | 43.23 | 43.33 | | | |
| 742 " 743 | 273 17 45.57 | 93 17 19.64 | 2639.00 | 2617.5 | 2635. | 44.73 | 44.78 | | | |
| 743 " 744 | 273 17 23.59 | 93 16 56.54 | 2753.43 | 2774.5 | 2752. | 46.24 | 46.24 | | | |
| 744 " 745 | 273 17 17.57 | 93 16 42.35 | 2973.80 | 2970.5 | 2965. | 47.79 | 47.74 | | | |
| 745 " 746 | 273 24 24.33 | 93 22 42.01 | 4307.09 | 4294.5 | 4304. | 49.52 | 49.42 | 745 | Right 7 23 16 | 8 46 |
| 746 " 747 | 273 23 56.06 | 92 39 31.53 | 2496.65 | 2488.5 | 2494.75 | 52.04 | 51.86 | | | |
| 747 " 748 | 272 39 20.09 | 92 39 01.69 | 1872.99 | 1869.5 | 1869.25 | 53.18 | 52.95 | 747 | Left 43 13 23 | 43 11 |
| 748 " 749 | 271 44 15.55 | 91 43 52.84 | 2312.02 | 2307. | 2304.0 | 54.04 | 53.78 | 749 | Left 54 52 72 | 53 35 |
| 749 " 750 | 271 20 10.15 | 91 20 34.30 | 3641.51 | 3630. | 3636.25 | 54.73 | 54.42 | 750 | Left 14 42 38 | 16 40 |
| 750 " 751 | 271 20 13.80 | 91 20 57.10 | 1708.64 | | | 55.67 | 55.30 | | | |
| 751 " 751A | 271 28 34.46 | 91 28 16.28 | 1848.25 | 3547.5 | 3544. | 56.11 | 55.70 | | | |
| 751A " 752 | 271 29 35.19 | 91 29 14.80 | 2072.75 | 2064.5 | 2064.75 | 56.56 | 56.12 | | | |
| 752 " 753 | 271 29 09.68 | 91 26 57.67 | 1710.5 | 1710.5 | 1711.75 | 57.11 | 56.63 | | | |
| 753 " 754 | 271 32 01.41 | 91 31 58.37 | 308.70 | 317. | 317. | 57.54 | 57.03 | | | |
| 754 " 755 | 271 32 01.41 | 91 31 58.37 | 308.70 | 317. | 317. | 57.54 | 57.03 | | | |
| 755 " 756 | 271 26 26.90 | 91 26 00.72 | 2661.97 | 2663. | 2656.5 | 57.62 | 57.10 | | | |

SESSIONAL PAPER No. 25.

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|-----|-----|----|-------|----|----|-------|---------|--------|---------|----|----|-------|----|----|-------|-----|------|----|----|----|----|----|
| 756 " | 757 | 271 | 26 | 07-93 | 91 | 25 | 41-24 | 2713-92 | 2705-5 | 2713-5 | 44 | 59 | 58-28 | 44 | 59 | 57-71 | 758 | Left | 16 | 59 | 02 | 19 | 50 |
| 757 " | 758 | 271 | 24 | 45-41 | 91 | 24 | 16-67 | 2322-10 | 2320-5 | 2318-5 | | | 58-95 | | | 58-33 | | | | | | | |
| 758 " | 759 | 271 | 09 | 01-24 | 91 | 08 | 38-53 | 2309-01 | 2310-5 | 2311-5 | | | 59-66 | | | 58-99 | | | | | | | |
| 759 " | 760 | 271 | 08 | 32-46 | 91 | 08 | 10-57 | 2225-08 | 2217-5 | 2217-5 | | | 00-12 | | | 59-41 | | | | | | | |
| 760 " | 761 | 271 | 08 | 19-48 | 91 | 07 | 56-17 | 2370-32 | 2308 | 2368-5 | | | 00-56 | | | 59-83 | | | | | | | |
| 761 " | 762 | 271 | 07 | 45-14 | 91 | 07 | 25-25 | 2022-05 | 2016 | 2019 | | 45 | 01-02 | | | 00-29 | | | | | | | |
| 762 " | 763 | 270 | 38 | 23-68 | 90 | 37 | 38-55 | 2554-92 | 2550 | 2550-75 | | | 01-41 | | | 00-68 | | | | | | | |
| 763 " | 764 | 270 | 37 | 22-39 | 90 | 36 | 57-39 | 2531-81 | 2527 | 2530-5 | | | 01-69 | | | 00-96 | | | | | | | |
| 764 " | 765 | 270 | 37 | 01-45 | 90 | 36 | 36-96 | 2489-71 | 2480 | 2490 | | | 01-96 | | | 01-23 | | | | | | | |
| 765 " | 766 | 270 | 27 | 50-34 | 90 | 27 | 30-80 | 1986-30 | 1981 | 1986 | | | 02-23 | | | 01-50 | | | | | | | |
| 766 " | 767 | 270 | 26 | 04-40 | 90 | 25 | 44-74 | 1998-78 | 1993-5 | 1998 | | | 02-38 | | | 01-65 | | | | | | | |
| 767 " | 768 | 270 | 26 | 03-91 | 90 | 25 | 43-65 | 2059-40 | 2047-5 | 2058 | | | 02-54 | | | 01-81 | | | | | | | |
| 768 " | 769 | 270 | 00 | 32-80 | 90 | 00 | 18-70 | 1433-32 | 1439-5 | 1432 | | | 02-69 | | | 01-96 | | | | | | | |
| 769 " | 770 | 269 | 59 | 48-27 | 89 | 59 | 40-37 | 803-53 | 844 | 850-75 | | | 02-69 | | | 01-96 | | | | | | | |
| 770 " | 771 | 270 | 00 | 07-29 | 89 | 59 | 42-21 | 2549-60 | 2495 | 2495 | | | 02-69 | | | 01-96 | | | | | | | |
| 771 " | 772 | 269 | 59 | 17-04 | 89 | 59 | 04-24 | 1301-10 | 1312 | 1304 | | | 02-69 | | | 01-96 | | | | | | | |
| 772 " | 773 | 270 | 00 | 04-60 | 89 | 59 | 46-89 | 1800-17 | 1778 | 1795-75 | | | 02-68 | | | 01-95 | | | | | | | |
| 773 " | 774 | 270 | 04 | 37-43 | 90 | 04 | 32-39 | 511-86 | 586-5 | 558-75 | | | 02-68 | | | 01-95 | | | | | | | |
| 774 to the R. | | | | | | | | | | | | | | | | | | | | | | | |
| St. Lawrence. | | 270 | 04 | 32-39 | | | | 100-00 | | | | | 02-68 | | | 01-95 | | | | | | | |

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ASTRONOMICAL STATION No. 1.

FAIRBANKS.

11th May, 1903.

Latitude.

| Star number Berliner Jahrbuch. | Direction from Zenith. | Latitude north. | Mean of pairs. |
|--------------------------------|---------------------------|-------------------|----------------|
| | | ° ' " | ° ' " |
| 171 | North. | 45 00 34.56 | |
| 174 | South. | 49.28 | 45 00 41.92 |
| 447 | North. | 33.72 | |
| 177 | South. | 49.32 | 41.52 |
| 452 | North. | 34.52 | |
| 180 | South. | 51.57 | 43.04 |
| 184 | North. | 32.93 | |
| 187 | South. | 50.78 | 41.85 |
| 198 | North. | 34.54 | |
| 192 | South. | 48.08 | 41.31 |
| 220 | North. | 34.16 | |
| 197 | South. | 49.55 | 41.85 |
| 472 | North. | 34.06 | |
| 209 | South. | 47.36 | 40.71 |
| 229 | North. | 35.20 | |
| 215 | South. | 47.01 | 41.10 |
| 235 | North. | 33.95 | |
| 478 | South. | 47.55 | 40.75 |
| 485 | North. | 36.07 | |
| 238 | South. | 48.21 | 42.14 |
| 256 | North. | 35.45 | |
| 241 | South. | 47.61 | 41.53 |
| 259 | North. | 33.84 | |
| 263 | South. | 47.90 | 40.87 |
| 284 | North. | 34.86 | |
| 268 | South. | 49.26 | 42.06 |
| | | Mean of all..... | 45 00 41.59 |
| | | Probable error... | ± 0.12 |

Fairbanks station is on the boundary line 477 feet west of monument 648.

ASTRONOMICAL STATION No. 2.

AZIMUTH.

| Date. | Star. | Set. | Azimuth. |
|-----------------------|--------------|--------------------|-------------|
| | | | ° ' " |
| 20th June, 1902 | Polaris..... | 1 | 88 56 57.67 |
| " | " | 2 | 58.65 |
| " | " | 3 | 54.92 |
| | | Mean..... | 88 56 57.08 |
| | | Aberration..... | + 0.32 |
| | | Azimuth of line... | 88 56 57.40 |
| | | Probable error.... | ± 0.74 |

Astronomical Station No. 2 is on the transit line opposite monument No. 650A.

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ASTRONOMICAL STATION No. 3.

AZIMUTH.

| Date. | Star. | Set. | Azimuth. |
|---------------------------|--------------|--------------------|--------------|
| | | | ° ' " |
| 11th September, 1902..... | Polaris..... | 1 | 267 43 43·35 |
| " " | " | 2 | 48·61 |
| " " | " | 3 | 45·49 |
| " " | " | 4 | 42·98 |
| | | Mean..... | 267 43 45·11 |
| | | Aberration | + 0·32 |
| | | Azimuth of line... | 267 43 45·43 |
| | | Probable error.... | ± 0·87 |

Astronomical Station No. 3 is on the transit line 239 feet west of monument No. 657.

ASTRONOMICAL STATION No. 4.

AZIMUTH.

| Date. | Star. | Set. | Azimuth. |
|---------------------|--------------|--------------------|--------------|
| | | | ° ' " |
| 8th July, 1902..... | Polaris..... | 1 | 267 16 12·13 |
| " " | " | 2 | 12·42 |
| " " | " | 3 | 12·86 |
| | | Mean..... | 267 16 12·47 |
| | | Aberration | + 0·32 |
| | | Azimuth of line... | 267 16 12·79 |
| | | Probable error.... | ± 0·14 |

Astronomical Station No. 4 is on the transit line 27 feet west of monument No. 661.

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ASTRONOMICAL STATION No. 5.

CONNELLY.

Latitude and Azimuth.

| Date. | Star. | Set. | Azimuth. |
|---------------------------|--------------|--------------------|--------------------|
| 16th September, 1902..... | Polaris..... | 1 | ° ' " 270 02 41·13 |
| " " | " | 2 | 48·15 |
| " " | " | 3 | 47·64 |
| | | Mean | 270 02 45·64 |
| | | Aberration..... | + 0·32 |
| | | Azimuth of line... | 270 02 45·96 |
| | | Probable error.... | ± 1·08 |

Connolly is on the transit line 22 feet east of monument No. 678.

CONNELLY.

17th October, 1902.

Latitude. •

| Star number Berliner Jahrbuch. | Direction from Zenith. | Latitude North. | Mean of Pairs. |
|--------------------------------|------------------------|--------------------|-------------------|
| 316..... | North. | ° ' " 45 00 22 53 | ° ' " 45 00 19·91 |
| 7..... | South. | 17·29 | |
| 524..... | North. | 21·23 | 17·88 |
| 526..... | South. | 14·52 | |
| 334..... | North. | 19·28 | 17·76 |
| 535..... | South. | 16·23 | |
| 520..... | North. | 20·93 | 17·54 |
| 1..... | South. | 14·16 | |
| 347..... | North. | 17·00 | 18·14 |
| 30..... | South. | 19·28 | |
| 325..... | North. | 24·25 | 21·04 |
| 18..... | South. | 17·84 | |
| | | Mean for 17th Oct. | 45 00 18·71 |
| | | Probable error.... | + 0·40 |

SESSIONAL PAPER No. 25

CONNELLY.

23rd October, 1902.

Latitude.

| Star number Berliner Jahrbuch. | Direction from Zenith. | Latitude North. | Mean of Pairs. |
|--------------------------------|------------------------|-------------------------|----------------|
| | | ° ' " | ° ' " |
| 520 | North. | 45 00 15.68 | |
| 44 | South. | 23.56 | 45 00 19.62 |
| 316 | North. | 14.93 | |
| 7 | South. | 23.60 | 19.27 |
| 308 | North. | 14.63 | |
| 30 | South. | 25.32 | 19.97 |
| 291 | North. | 14.86 | |
| 18 | South. | 23.87 | 19.37 |
| 334 | North. | 6.16 | |
| 535 | South. | 29.21 | 17.68 |
| 510 | North. | 13.62 | |
| 15 | South. | 22.63 | 18.12 |
| 524 | North. | 16.97 | |
| 526 | South. | 16.82 | 16.90 |
| 31 | North. | 12.99 | |
| 359 | South. | 24.60 | 18.79 |
| 347 | North. | 11.67 | |
| 538 | South. | 27.27 | 19.47 |
| | | Mean for 23rd Oct. | 45 00 18.80 |
| | | " 17th " | 18.71 |
| | | Mean for both nights... | 45 00 18.76 |
| | | Probable error. | + 0.32 |

ASTRONOMICAL STATION No. 6.

AZIMUTH.

| Date. | Star. | Set. | Azimuth. |
|------------------------|--------------|---------------------|--------------|
| | | | ° ' " |
| October 30, 1902 | Polaris..... | 1 | 267 06 15.44 |
| " 31 " | " | 2 | 15.58 |
| " 31 " | " | 3 | 14.08 |
| " 31 " | " | 4 | 15.58 |
| | | Mean | 267 06 15.17 |
| | | Aberration | + 0.32 |
| | | Azimuth of line... | 267 06 15.49 |
| | | Probable error..... | ± 0.21 |

The above station is on the transit line 9 feet east of monument No. 699.

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ASTRONOMICAL STATION No 7.

TROUT RIVER.

Azimuth.

Micrometric and direction methods combined.

| Date. | Star. | Set. | Sheet. | Azimuth. | Result of Set. |
|-------------------|-----------|------|--------|------------------|----------------|
| | | | | ° ' " | ° ' " |
| June 6, 1903..... | Polaris.. | 1 | 1 | 90 11 41.74 | |
| " 6 "..... | " | 1 | 2 | 45.38 | 90 11 43.56 |
| " 6 "..... | " | 2 | 1 | 45.44 | |
| " 6 "..... | " | 2 | 2 | 43.59 | 44.52 |
| " 6 "..... | " | 3 | 1 | 46.46 | |
| " 6 "..... | " | 3 | 2 | 43.76 | 45.11 |
| " 6 "..... | " | 4 | 1 | 43.17 | |
| " 6 "..... | " | 4 | 2 | 44.92 | 44.04 |
| | | | | Mean..... | 90 11 44.31 |
| | | | | Aberration..... | + 0.32 |
| | | | | Azimuth of line. | 90 11 44.63 |
| | | | | Probable error.. | ± 0.22 |

Astronomical Station No. 7 is on the transit line 824 feet west of monument No. 731.

ASTRONOMICAL STATION No. 8.

STARK.

Azimuth.

| Date. | Star. | Set. | Sheet. | Azimuth. | Result of Set. |
|---------------------|-------------|------|--------|------------------|----------------|
| | | | | ° ' " | ° ' " |
| 4th June, 1903..... | Polaris.... | 1 | 1 | 93 07 43.90 | |
| "..... | " | 1 | 2 | 42.90 | 93 07 43.40 |
| "..... | " | 2 | 1 | 47.63 | |
| "..... | " | 2 | 2 | 47.42 | 47.53 |
| "..... | " | 3 | 1 | 50.90 | |
| "..... | " | 3 | 2 | 45.64 | 48.27 |
| "..... | " | 4 | 1 | 44.85 | |
| "..... | " | 4 | 2 | 41.93 | 43.39 |
| | | | | Mean..... | 93 07 45.65 |
| | | | | Aberration..... | + 0.32 |
| | | | | Azimuth of line. | 93 07 45.97 |
| | | | | Probable error.. | ± 0.88 |

Astronomical Station No. 8 is on the transit line 1,344 feet west of monument No. 740.

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ASTRONOMICAL STATION No. 9.

HOLLINBECK.

Latitude and Azimuth.

| Date. | Star. | Set. | Sheet. | Azimuth. | Result of Set. |
|--------------------|-------------|------|--------|------------------|----------------|
| | | | | ° ' " | ° ' " |
| 29th May 1903..... | Polaris.... | 1 | 1 | 270 44 26.94 | |
| " | " | 1 | 2 | 23.18 | 270 44 25.06 |
| " | " | 2 | 1 | 30.50 | |
| " | " | 2 | 2 | 25.91 | 28.21 |
| " | " | 3 | 1 | 27.01 | |
| " | " | 3 | 2 | 24.86 | 25.94 |
| " | " | 4 | 1 | 28.40 | |
| " | " | 4 | 2 | 25.60 | 27.01 |
| | | | | Mean..... | 270 44 26.55 |
| | | | | Aberration. | + 0.32 |
| | | | | Azimuth of line. | 270 44 26.87 |
| | | | | Probable error.. | ± 0.46 |

Astronomical Station No. 9 is on the transit line 786 feet east of monument No. 760.

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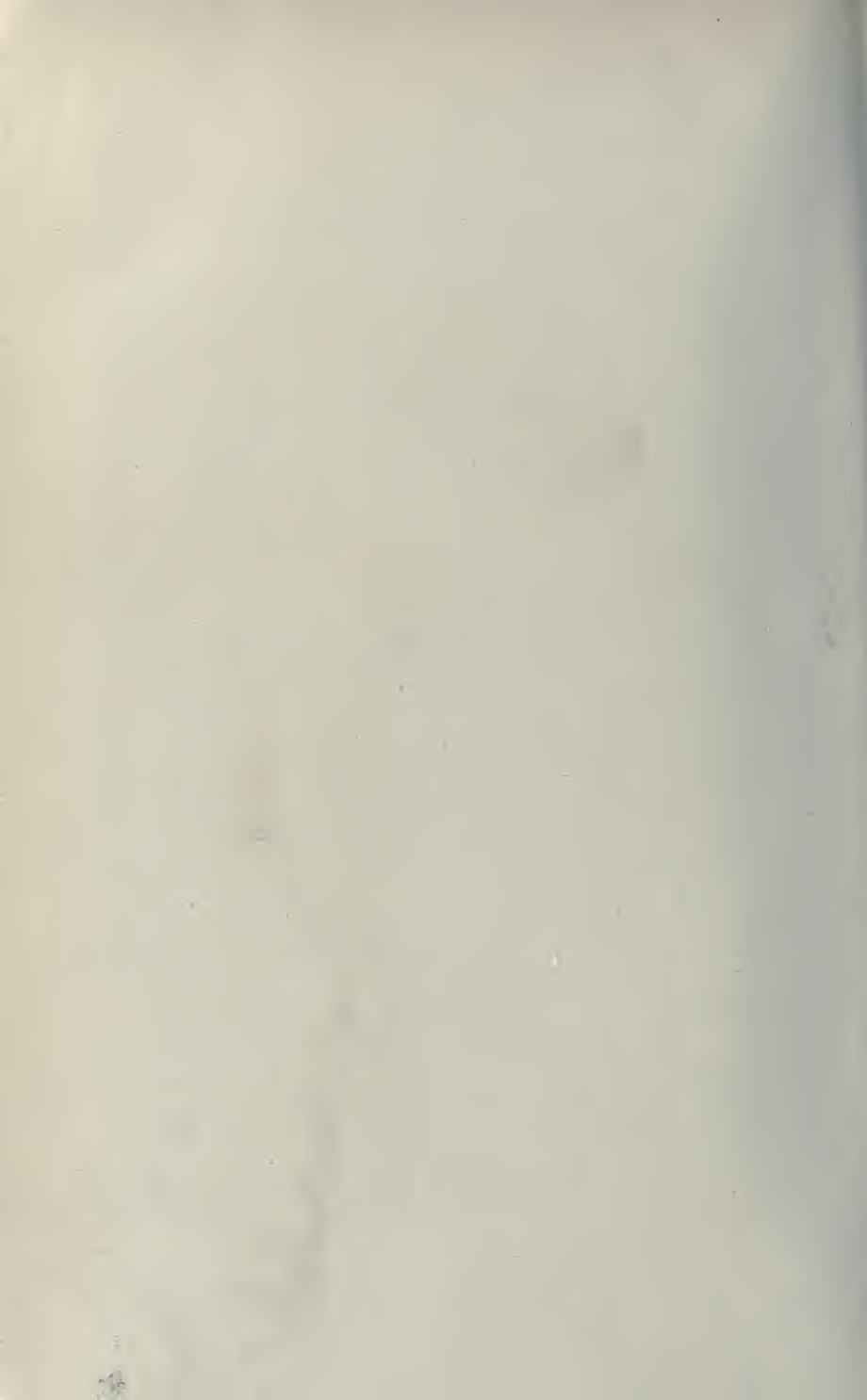
HOLLINBECK.

25th May 1903.

Latitude.

| Star number Berliner Jahrbuch. | Direction from Zenith. | Latitude. | Mean of Pairs. |
|--------------------------------|---------------------------|---------------------------------------|----------------|
| | | ° ' " | ° ' " |
| 154 | North. | 44 59 37.34 | |
| 156 | South. | 45 00 20.13 | 44 59 58.73 |
| 169 | North. | 44 59 39.36 | |
| 164 | South. | 45 00 19.47 | 59.42 |
| 171 | North. | 44 59 40.54 | |
| 167 | South. | 45 00 19.61 | 60.07 |
| 447 | North. | 44 59 41.28 | |
| 174 | South. | 45 00 18.07 | 59.68 |
| 178 | North. | 44 59 38.70 | |
| 177 | South. | 45 00 18.02 | 58.36 |
| 432 | North. | 44 59 39.38 | |
| 180 | South. | 45 00 18.48 | 58.93 |
| 184 | North. | 44 59 40.94 | |
| 187 | South. | 45 00 16.43 | 58.68 |
| 198 | North. | 44 59 40.20 | |
| 192 | South. | 45 00 16.00 | 58.10 |
| 220 | North. | 44 59 44.82 | |
| 197 | South. | 45 00 17.11 | 60.97 |
| 472 | North. | 44 59 43.13 | |
| 201 | South. | 45 00 15.01 | 59.07 |
| 229 | North. | 44 59 43.31 | |
| 209 | South. | 45 00 16.33 | 59.82 |
| 235 | North. | 44 59 42.31 | |
| 215 | South. | 45 00 14.41 | 58.22 |
| 485 | North. | 44 59 45.24 | |
| 478 | South. | 45 00 14.62 | 59.93 |
| 256 | North. | 44 59 45.46 | |
| 233 | South. | 45 00 14.29 | 59.87 |
| 259 | North. | 44 59 46.34 | |
| 241 | South. | 45 00 13.61 | 59.98 |
| 284 | North. | 44 59 40.61 | |
| 263 | South. | 45 00 17.00 | 58.81 |
| 282 | North. | 44 59 39.86 | |
| 268 | South. | 45 00 16.61 | 58.26 |
| | | Mean latitude.... | 49 59 59.23 |
| | | Probable error of determination... | ± 0.13 |





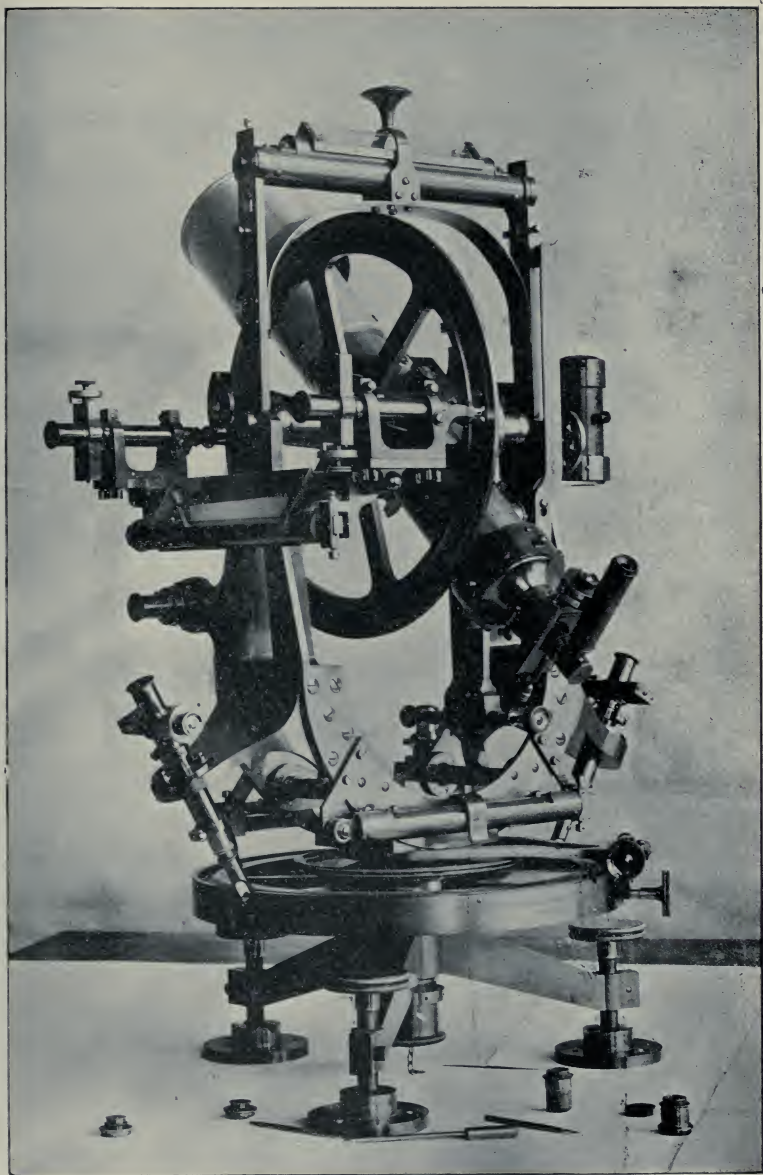


PLATE 1—ALTAZIMUTH INSTRUMENT.



OBSERVATORY AT SUVA, FIJI.

Photo by Otto Klotz.



PACIFIC CABLE STATION, SUVA, FIJI.

Photo by Otto Klotz.



COCOANUT TREE, FANNING ISLAND.

Photo by F. W. O. Werry.



Photo by F. W. O. Werry.
WHITE OAK, NORFOLK ISLAND. Showing effect of prevailing winds from the sea.

PART X

FORESTRY

FORESTRY.

REPORT OF THE SUPERINTENDENT OF FORESTRY.

DEPARTMENT OF THE INTERIOR, FORESTRY BRANCH,
OTTAWA, October 19, 1904.

JAMES A. SMART, Esq.,
Deputy Minister of the Interior,
Ottawa.

SIR,—I have the honour to submit the annual report on forestry for the year 1904, or more correctly, from the date of the last annual report up to the present time, being the sixth annual report from this branch.

Reports from the assistant superintendent, from the inspectors of tree-planting, and from several of the forest rangers and others temporarily employed in forest protection, will also be found in the appendix.

Dr. A. Harold Unwin, who had been employed as one of the assistants in this branch for about a year, left the service in February for a position in the imperial forestry service in South Nigeria. I may say that only the offer of a much more lucrative position caused Dr. Unwin to leave the work of this branch, where he had proved himself a most capable officer.

Dr. Unwin's place was filled by the appointment of Mr. Roland D. Craig, F.E. Mr. Craig is a Canadian by birth. He studied at the Ontario Agricultural College at Guelph, where he took his degree of B.S.A., after which he took a full course at the New York State College of Forestry at Cornell University. On obtaining his degree from that institution he was employed by the United States Forestry Bureau on work on their forest reserves in California. He engaged with this branch in April last; and has been this summer principally employed on inspection work on the prairies in Manitoba. Mr. Craig is well equipped for the work, and will doubtless make a very efficient and useful officer.

I regret to have to record the death, in March last, of Mr. George Lang, the manager of our nursery work at Indian Head. Mr. Lang was for many years connected with the Experimental Farm at Indian Head, being employed in connection with the growing of trees there, and when this branch started to grow trees from seed for distribution to the settlers on a large scale Mr. Lang was engaged to oversee the work, a position for which he was exceedingly well qualified. So far no one has been engaged to succeed him, the assistant superintendent having personally looked after the work this season. It is desirable, however, that this place should be filled as soon as possible.

FORESTRY NURSERY STATION.

It was stated in last year's report that a beginning had been made on the quarter-section of land about a mile south of the railway station at Indian Head in the way of preparing the soil for the growing of trees thereon, it being the intention as soon as possible to centralize at this place the work hitherto done on the experimental farms at Brandon and Indian Head by this branch. Further progress in this direction has

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been made during the present season. Thirty-five acres of this land was broken and backset last year, and twenty-five acres of it was this spring planted to trees, tree seed and oats, ten acres being left to fallow to be planted with tree seed this fall. This season about forty acres more has been broken and backset. It is proposed to discontinue the further growing of trees at Brandon and thus do away with the inconvenience of operating two nurseries at such a distance apart. The necessary buildings have been erected, roads laid out, and in addition to the trees for distribution others of different varieties for permanent plantation have been started. It is designed not only that trees shall be grown here in large quantities for distribution to the settlers throughout the treeless plains, but also that this station shall be a model forestry farm where visitors will be able to see the possibilities of growing a variety of trees, both evergreen and deciduous, on naturally treeless land. Here, too, it will be possible to do some experimental work in the growing of certain varieties of introduced species of forest trees from other parts of the world possessing a climate similar to our own. It will also be easy to gather statistics here of the relative yearly increase in the growth of the different varieties under cultivation and other information of great value to the people of the prairie region. Every civilized country at the present day recognizes the furnishing of information on matters in which any considerable number of its people are interested as a legitimate exercise of its government. We have in Canada information given by the government on nearly every branch of industry. We have our agricultural colleges and experimental farms where experiments are made in agriculture and horticulture; our dairy associations, fruit growers' associations, agricultural societies and various others, receiving both federal and local government support. Surely the establishment and maintenance of a forestry station where object lessons on a subject of such importance to the people of Canada as her forests may be given needs no argument to justify it.

GOVERNMENT CO-OPERATION WITH THE PRAIRIE SETTLERS IN THE PLANTING OF FOREST TREES.

The object of the department in its scheme of co-operation with the prairie settlers in growing forest trees on their farms is two-fold; first, to assist the individual who is willing to permanently set aside a small portion of his land for forestry purposes and who agrees to put that portion in a thorough state of cultivation, to plant such varieties of trees thereon as are deemed on examination by experts best suited for it, and to continue to cultivate and care for the trees; secondly, by means of these plantations scattered here and there over the whole extent of the otherwise treeless prairie to furnish object lessons to the settlers, showing the best methods of tree cultivation in almost every neighbourhood; in other words, to exhibit a model forestry plantation so near at hand to every settler that he can learn all the details necessary to success in this line. By this means it is expected that the great majority of settlers, having this example before them, will in time find it best to have their own nursery beds in which they will sow the seed of such varieties as they wish to grow, and thus be able to transplant them when the weather conditions are favourable. This will in time relieve the government nursery station of a large portion of its present work in the growth and distribution of the ordinary forest tree and permit it to devote itself more to the distribution of tree seeds and to furnishing other varieties, the successful cultivation of which the original shelter belt will make possible.

Details of the distribution of trees and tree seeds will be found in the appended report of the assistant superintendent, from which the following summary is taken:--

| | | |
|---------|--|-------|
| In 1901 | the total number of applicants for trees was | 469 |
| In 1902 | " " " " | 1,033 |
| In 1903 | " " " " | 1,649 |
| In 1904 | " " " " | 2,218 |

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It should, however, be noted that some of these have received trees for more than one year, it being the rule that if a settler who has received trees has complied with the regulations he can obtain a further supply to extend his plantation.

Since 1901 the following numbers of trees have been distributed by this branch:—

| | |
|----------------|-----------|
| 1901.. | 58,800 |
| 1902.. | 466,000 |
| 1903.. | 917,950 |
| 1904.. | 1,800,000 |

| | |
|-----------------|-----------|
| Total.. | 3,242,750 |
|-----------------|-----------|

Also about 2,000 pounds of maple and ash seed were sent out; in all a sufficient amount of material to plant up about 1,300 acres.

The following figures will give an idea of the trees now growing in the nurseries:—

Large enough for distribution—

| | |
|---|-----------|
| Manitoba maple.. | 1,385,049 |
| Native ash.. | 1,272,718 |
| Elm.. | 2,500 |
| Russian poplar, one year cuttings.. | 2,200 |
| | <hr/> |
| | 2,662,467 |

Too small for distribution—

| | |
|----------------------|-----------|
| Maple.. | 505,039 |
| Native ash.. | 774,931 |
| Elm.. | 60,000 |
| Birch.. | 5,694 |
| | <hr/> |
| | 1,345,664 |

Conifers—

| | |
|--|---------|
| Larch (European) transplants.. | 3,470 |
| “ 2-year seedlings.. | 29,444 |
| “ 1-year seedlings.. | 12,006 |
| “ (native) transplants.. | 1,252 |
| | <hr/> |
| | 46,132 |
| Scotch pine, 1-year transplants..... | 15,800 |
| “ 2-year seedlings.. | 34,104 |
| “ 1-year seedlings.. | 42,488 |
| | <hr/> |
| | 92,392 |
| Pinus Murryana, 1-year seedlings.... | 13,764 |
| “ Banksiana, 1-year seedlings.... | 9,250 |
| “ Montana, 2-year seedlings.. | 11,820 |
| | <hr/> |
| | 34,834 |
| White spruce, 1-year transplants.. | 2,615 |
| “ 2-year seedlings.. | 5,229 |
| “ 1-year seedlings.. | 2,728 |
| | <hr/> |
| | 10,572 |
| Picea pungens, 1-year seedlings.. | 37,296 |
| Douglas fir, 1-year seedlings.. | 200 |
| Total conifers.. | <hr/> |
| | 221,426 |

| | |
|-----------------------|-----------|
| Total stock.. | 4,229,557 |
|-----------------------|-----------|

From the reports of the inspectors it will be seen that the trees sent out have done exceedingly well. Mr. Caldwell estimates that of all trees planted during the past four seasons in his district, 85 per cent are now living. Mr. Stevenson finds now growing, 85 per cent of those planted in 1902; 80 per cent of those planted in 1903; 95 per cent of those planted in 1904. Mr. Wallin says that he found of all planted

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during the past four seasons the following were growing: elm, 90 per cent; ash, 95 per cent; maple, 90 per cent, and cottonwood, 88 per cent. Further details on this point will be found in the reports of the several inspectors appended.

In addition to the trees planted under co-operation with the settlers on their farms, 9,500 Scotch pine seedlings were planted last spring in the sand hills on the Spruce Woods timber reserve, in Manitoba. Five thousand of these were one year old and 4,500 two year old plants; and about three pounds of Scotch pine and jack pine seed was sown at the same time as an experiment. Recent examinations have shown that from 35 to 45 per cent of the two-year old plants had made fair growth, while of those one year old scarcely any had lived. Some of the seed has come up, but as the soil in those hills is nearly pure sand, it is probable that many of the seeds did not get sufficient moisture after the sowing, which was late in the spring, to cause germination, and that they will come up next spring. As this timber reserve is valueless for agriculture, it is the desire of the branch to proceed as fast as the means at its disposal will permit in making it of some value in the production of timber by protecting the young natural growth where such is found to exist, and by planting where natural reproduction cannot be obtained.

FORESTRY EXHIBIT.

During the present season, as in former years, we had a forestry exhibit at the Dominion Exhibition at Winnipeg, and also at the Western Agricultural Fair at Brandon. The exhibit consisted of a large variety of native woods, mostly collected from the timbered districts of Manitoba, including sections of elm, scrub oak, basswood, white spruce, iron wood, green ash, white birch, native white poplar, Manitoba maple, balm of gilead and western black willow; and alongside there were shown sections of the same kinds of wood and other introduced varieties by which a comparison of the rates of growth under natural and artificial conditions could be made. Seedlings of different ages and of the varieties of trees best suited for planting in this country were shown growing in boxes. Leaves of the principal trees were pressed and mounted on sheets and a number of enlarged photographs taken in Manitoba and the Territories, illustrating what is being done by this branch in assisting afforestation on the plains, were also shown.

LECTURES.

The increased public interest in forestry is shown by the requests from various quarters for lectures on the subject. In February last meetings were held in the maritime provinces. The secretary of the Canadian Forestry Association accompanied me, and addresses were given at Halifax, St. John and Sackville, and also at Montreal on our return. In Manitoba and the Territories arrangements are made each year with the agricultural societies and farmers' institutes by which addresses on forestry are delivered at their meetings throughout the country.

PUBLICATIONS.

In addition to numerous articles contributed to the newspapers and magazines by the superintendent, a bulletin on Tree Planting on the Prairies of Manitoba and the North-west Territories, by the assistant superintendent, has just been issued from the press. This publication, which consists of about forty pages of reading matter, besides numerous illustrations, was prepared for the purpose of affording practical information to the settler on the western prairies as to the best methods of propagating, planting and managing hardy trees for shelter belts, wind-breaks and plantations.

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THE CANADIAN FORESTRY ASSOCIATION.

This association is steadily increasing in numbers, and is fast becoming an institution of great influence in the country. The influential character of its membership and the important matters with which it deals give it a distinguished place among the educative institutions of the country. This branch of the department may justly claim the parentage of the association, and it has given it considerable assistance from its start up to the present time, but the aims of its founders were that its influence should not be limited to any section of the country, but that it should be what its name implies, an institution for the whole of Canada, and that these objects are being realized may be inferred from the fact that provinces as widely separated as British Columbia, Ontario and Quebec, have within the past two years recognized its benefit to them by the governments of each of these provinces appropriating money towards its maintenance. As a forward step the directors of the association intend starting a quarterly periodical at the beginning of next year, which will be devoted entirely to forestry, and be conducted solely by the association.

DOMINION FORESTS.

The vast area of forest land under the control of the Dominion government has been pointed out in previous reports, but the discoveries of each year only go to show how little definite information we have of its great extent and value. As one instance out of many is the report that Dr. King brings of spruce timber of great size found growing in our territory along the new boundary line between Canada and Alaska. In this connection I cannot refrain from again respectfully calling attention to the necessity for exploration in our new districts.

The early history of Canada is much enlivened by the accounts of the journeys of the pioneer explorer into hitherto unknown regions. The explorer and the missionary during the French regime went hand in hand, and their names are written far beyond where the settler of to-day has yet gone, but private exploration is a thing of the past. Men to-day are too busily engaged in personal advancement to permit of the gratification of a spirit of adventure if such should continue to exist, and the result is that we know practically as little of the heritage we possess beyond the settled districts as we do of Africa or Australia. It is true that the Geological Survey has done all that could be expected of it with the limited means at its disposal, but it seems to me that the day has now come when the people of the country should have the means of knowing the character and natural resources of their own unoccupied possessions. The government should know in advance of settlement the character of the unsettled districts, so as to direct immigration aright; so that mineral land might be set aside as such; agricultural land devoted to the agriculturist, and land unsuited for agriculture but on which timber is growing reserved permanently for timber.

FOREST FIRES.

The past summer in western Alberta and British Columbia has been exceedingly dry. In British Columbia scarcely any rain fell from early in the spring up to about the beginning of September, and in some parts even later. The result was that bush fires were very general. The air was so filled with smoke for several weeks as to render coast navigation dangerous. In view of the danger to which the timber in the railway belt was exposed, the forest fire rangers were employed almost continuously, and, in addition, in case of several fires, additional help was obtained. I am glad to be able again to report that through their efforts under the able supervision of James Leamy, crown timber agent for the district, very little merchantable timber was destroyed in this belt.

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An increased number of rangers were also employed along the foothills of the Rocky mountains, and with one exception they seem to have been equally successful in preventing destruction from this cause. The exception referred to is the disastrous forest fire along the Crow's Nest Pass in southern Alberta on timber limits owned by the Hon. Peter McLaren. The reports say that three fires were started on this property, one near the railway, another somewhere in the interior of the limits, while another came over the mountains from the neighbourhood of Fernie. Every effort was made by the fire rangers, the owner of the limits and the Canadian Pacific Railway to check the fires, but owing to the dry character of the woods and a strong wind that was blowing at the time considerable destruction of timber was caused. Full reports of the extent and damage of this fire have not yet been received.

The number of forest fire rangers regularly employed during the present season in the several districts is as follows:—

| | |
|--|-----------|
| Railway belt in British Columbia (besides a large additional number employed fighting fires), under James Leamy, crown timber agent. | 10 |
| East slope of Rocky mountains between the international boundary and the North Saskatchewan river, under forest ranger Joseph E. Stauffer. | 12 |
| Edmonton district, under forest ranger John A. C. Cameron. | 4 |
| Prince Albert district, under forest ranger A. L. Robertson. | 3 |
| Moose Mountain, under forest ranger John Rutherford. | 2 |
| Riding Mountain—North side, under forest ranger Thos. Young. | 5 |
| Riding Mountain—South side, under forest ranger J. W. Thompson. | 2 |
| Turtle mountain, under forest ranger C. A. Walkinshaw. | 1 |
| Spruce woods. | 1 |
| Total. | 40 |

The protection of our natural forests is a matter of supreme importance to the whole country, and one that has been almost entirely neglected in the past. The spectacle witnessed by the traveller passing through our unsettled forest country is sad indeed. On every hand he beholds the charred remains of the old time forest. He sees this as he journeys through Nova Scotia, New Brunswick, Quebec, Ontario, the North-west Territories, and, sad to say, this destruction is not least if not greatest in the giant woods of the Pacific slope. Everywhere this destruction of public property is before his eyes, and it is humiliating to confess, as we must do, that the fires which caused this great loss were not only permitted but in most cases caused by our own people. The settlers in these regions on the one hand laboured with all the energy characteristic of the backwoods pioneer to create wealth, while on the other hand they lighted the torch which resulted in greater loss to the country as a whole than was caused by all the conflagrations that have ever occurred in our settled districts.

FUTURE DEMAND FOR TIMBER BY THE PRAIRIE SETTLERS.

With the rapid settlement of the prairies, which is now only beginning, will come a greatly increased demand for lumber, far greater than would be required by an equal number settling in a wooded country where the material for building, fencing, &c., is largely obtained from that growing on the homestead. The prairie settler has to look to the forests lying beyond the Saskatchewan to the north and to those of the Rocky mountains and British Columbia to the west to supply his wants in this respect, and he has a right to expect that this supply will be permanently maintained.

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The demand from these quarters for lumber and shingles has already within the past few years greatly increased the value of timber limits adjacent to the prairies as well as those in British Columbia, and as the government collects taxes and dues on these limits the expenditure of money in preventing their destruction is a judicious investment of the public funds.

I cannot close this report without again expressing very great satisfaction at the assistance this branch of the department has received from various quarters in the prosecution of its work. The railways have co-operated in various ways to assist both in the work of tree planting and in fire guarding. The North-west Mounted Police have as usual been active in preventing the spread of fires wherever their posts are established, and the Hudson's Bay Company, through the courtesy of Mr. Chipman, the commissioner, have again posted up our notices of warning against the careless use of fire throughout the length and breadth of the vast forest territory embraced in the field of their operations.

I have the honour to be, sir,

Your obedient servant,

E. STEWART,

Superintendent of Forestry.

APPENDIX No. 1.

REPORT OF NORMAN M. ROSS, B.S.A., B.F., ASSISTANT SUPER-
INTENDENT OF FORESTRY.

INDIAN HEAD, ASSA.,

September 25, 1904.

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I have the honour to submit my fourth annual report of work carried out under your direction. This report dates from October 10 of last year.

At that time I was at the nurseries at Indian Head as the seedlings were then being dug up and heeled in ready for packing and distribution this spring. When the work was completed I went to Banff, where it is intended to set up a forestry exhibit in the Park museum, to see what space would be available for this purpose, and also to get some idea as to what the exhibit should consist of in order to be of most general interest. Towards the end of November I returned to Ottawa and remained in the office there during the greater part of the winter. In February I came back to Indian Head to attend a two days' institute meeting at which I delivered an address on tree planting, and also to make arrangements for the erection of the buildings put up this summer in our new nursery. I then returned to Ottawa expecting to remain there till spring opened up. Owing, however, to the sudden death of Mr. Geo. Lang, who had been looking after the work here, it was necessary for me to go back to Indian Head about the middle of March, and take charge of the work personally. As we have so far been unable to find a suitable man to act as foreman in the nurseries, I have had to remain here practically ever since, attending to the erection of buildings, fencing and other details in connection with starting a new place.

As there has been so much to look after in this way it was impossible for me to undertake any inspection work this summer as I have done in past seasons. The number of applicants in the Territories has greatly increased, and three inspectors

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were needed to cover the ground this year. Mr. Archibald Mitchell has gone over the same ground as formerly, namely, Alberta and west Assiniboia west of Maple creek. Mr. Angus MacIntosh has inspected along the Arcola branch of the Canadian Pacific Railway, the main line from Fleming west to Wolseley, and the Prince Albert branch. Mr. John Caldwell was given the Yorkton branch, the main line from Maclean west to Caron and the Soo line from Moose Jaw to North Portal.

The following figures show plainly the great increase in tree planting, and the necessity for an additional staff of inspectors:—

| | | |
|--|-------|--------|
| In 1901 there were on the list for the Territories | 166 | names. |
| In 1902 | " | " |
| In 1903 | " | " |
| In 1904 | " | " |
| In 1901 | " | " |
| In 1902 | " | " |
| In 1903 | " | " |
| In 1904 | " | " |
| In 1901 | " | " |
| In 1902 | " | " |
| In 1903 | " | " |
| In 1904 | " | " |
| | 355 | " |
| | 580 | " |
| | 1,009 | " |
| | 303 | " |
| | 678 | " |
| | 1,069 | " |
| | 1,209 | " |

The number on the list for each year is not made up altogether of fresh applicants, the old ones are kept on, that is, those who have complied with our regulations, and they are also visited to see that the plantations set out are being properly cared for. Many of the men who planted in 1901 and 1902 have continued adding to their plantations each spring until some now have several acres under trees.

The inspection in Manitoba has been carried out by Mr. A. P. Stevenson assisted by Mr. Roland Craig and Mr. Hugo Wallin. It will be noticed that there is a much greater proportional increase in the number of applications in the North-west Territories than in Manitoba. This is chiefly due to the much larger immigration and new settlement in the Territories. A very large number of these new settlers too are from the western States, where the benefits of tree-planting have been fully demonstrated. Most of these people are anxious to plant immediately in order to obtain shelter as soon as possible.

This spring there were distributed from the Brandon and Indian Head nurseries something over 1,800,000 seedlings and cuttings of native maple, ash, elm, cottonwood, Russian poplar, and willow. All of these with the exception of 150,000 cottonwoods were grown on our own nurseries. These cottonwoods were obtained as formerly in North Dakota. Since 1901 we have distributed the following numbers of trees:—

| | |
|----------------|-----------|
| 1901. | 58,800 |
| 1902. | 466,000 |
| 1903. | 917,950 |
| 1904. | 1,800,000 |
| Total. | 3,242,750 |

Besides this number about 2,000 lbs. of maple and ash seed have also been sent out; in all a sufficient amount of material to plant up about 1,300 acres.

On the whole the trees sent out have done exceedingly well, and with only a few exceptions are carefully attended to. In the reports of the inspectors a more detailed account will be given of the success of the different varieties in each district. The maple, ash, elm, and willow seem to do well over the whole of the west. From recent reports the cottonwood in south-eastern Manitoba does not seem to be entirely satisfactory, but in other districts it appears to be the fastest growing tree we have. The cottonwood is a tree which seems to thrive best on the heavier soils and in moist places. In south-eastern Manitoba, however, the main difficulty seems to be with a rust fungus which affects the foliage; but the district where this is prevalent seems at present to be very limited. The cottonwood too is looked upon with disfavour by many on account of its killing back in the winter. This, however, does not seem to affect the growth of the tree to any extent in the majority of cases. The wet falls of

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recent years and the consequent late growth, which does not give the young shoots an opportunity to properly ripen before the heavy frosts, account no doubt for the rather large amount of killing back during the past few seasons. After the trees are three or four years old the winters do not seem to have any effect on them, at least the older trees on the experimental farm here have shown no sign of killing back for several years.

The Russian poplar we do not distribute very much, as it has been found that after they get to be a few years old they become subject to the attacks of borers and fungi. Mr. Mitchell reports that two-year old trees planted at Gleichen in Alberta and at other points are already being affected by this fungus. When the trees are young it seems to attack the stem at the point where the root commences, and rots the outer wood and the inner layer of bark, thus destroying the circulation of sap.

The elm and ash, especially the latter, seem to be coming into more general favour. They are both very hardy and are longer lived and produce better timber than either the poplar or willow, although they are slower in growth. The ash is very readily raised from seed, the elm not quite so easily, the seed being scarcer and, unless sown under the proper conditions of soil and moisture, it does not seem to germinate at all evenly; hence we cannot distribute this variety in such large quantities as either the maple or ash, although it is without doubt the best broad leaf tree we have. The conifers, with the exception of a limited number of white spruce and native tamarac, have not been sent out at all. We have several thousand one and two-year old seedlings growing in the nursery here, but they will not be ready for shipping for some time yet. The conifers, such as Scotch pine, tamarac, white spruce and jack pines, will undoubtedly prove most important trees for planting on the plains, and in this connection I would refer to a suggestion made in my last report that some work should be done in the tamarac, spruce and jack pine belts, to ascertain as nearly as possible their rates of growth, under natural conditions, upon which could be based some estimate of what such varieties might be expected to yield under cultivation.

This spring a number of seedlings of one and two-year old Scotch pine were planted as an experiment in the sand hills on the west end of the Spruce Woods reserve in Manitoba. The young plants were set in the sod without any previous preparation of the soil, and, although the planting was done late in the season and the seedlings not as strong as might be desired, the plantation is fairly encouraging. I visited this in September and found that from 35 to 45 per cent of the two-year old seedlings had made very fair growth. The one-year old plants were practically no good, as the roots were too small. Some seed of Scotch pine and jack pine was sown at the same time in holes dug in the sod. This has come up thinly, but many of the seeds will come up next spring, as the soil being nearly pure sand does not retain the moisture at the surface very long, and consequently the seeds, owing to late sowing, did not get a fair opportunity to germinate. I hope, however, that we may continue the planting next spring under more favourable conditions, and I have no doubt we may then expect better results.

FORESTRY EXHIBIT.

According to your instructions an exhibit was prepared for the Dominion Fair, held at Winnipeg early in August. This consisted of blocks of wood of the native trees grown naturally and under cultivation, seed of native varieties, leaves pressed and mounted, and one, two and three-year old seedlings growing in boxes. There were also several photographs of plantations taken throughout the west and of seedlings under cultivation in the nursery. Mr. Hugo Wallin assisted me in preparing and setting up this exhibit, and remained in charge during the time of the fair, when the specimens were removed to Brandon for the local fair at that place.

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NURSERY WORK.

As in former years, we have grown our stock on the experimental farms at Brandon and Indian Head. From an estimate of the seedlings, made in August, I obtained the following figures:—

GROWING AT BRANDON.

| | |
|---------------------|-----------|
| Maple. | 842,620 |
| Native ash. | 622,184 |
| Total. | 1,464,804 |

ESTIMATE OF SEEDLINGS AT INDIAN HEAD NURSERY, AUGUST 12, 1904.

*Large enough for Distribution.**Maple—*

| | |
|----------------------------|---------|
| Sown spring, 1904. | 210,053 |
| Sown fall, 1903. | 332,376 |
| | 542,429 |

Ash—

| | |
|--------------------------|---------|
| Sown fall, 1902. | 650,534 |
|--------------------------|---------|

Elm—

| | |
|--------------------|-------|
| Two years. | 2,500 |
|--------------------|-------|

Russian poplar—

| | |
|---|-----------|
| One year cuttings. | 2,200 |
| Total available for distribution. | 1,197,663 |

TOO SMALL FOR DISTRIBUTION.

| | |
|----------------|-----------|
| Maple. | 505,039 |
| Ash. | 774,931 |
| Elm. | 60,000 |
| Birch. | 5,694 |
| | 1,345,664 |

CONIFERS.

Larch—

| | |
|-------------------------------|--------|
| European transplants. | 3,470 |
| Two year seedlings. | 29,444 |
| One year seedlings. | 12,006 |
| Native transplants. | 1,252 |
| | 46,132 |

Scotch pine—

| | |
|-------------------------------|--------|
| One year transplants. | 15,800 |
| Two year seedlings. | 34,104 |
| One year seedlings. | 42,488 |
| | 92,392 |

Pinus Murryana—

| | |
|-----------------------------|--------|
| One year seedlings. | 13,764 |
|-----------------------------|--------|

Pinus Banksiana—

| | |
|-----------------------------|-------|
| One year seedlings. | 9,250 |
|-----------------------------|-------|

Pinus Montana—

| | |
|-----------------------------|--------|
| Two year seedlings. | 11,820 |
| | 34,834 |

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White spruce—

| | | |
|------------------------------|-------|--------|
| One year transplants.. . . . | 2,615 | |
| Two year seedlings.. . . . | 5,229 | |
| One year seedlings.. . . . | 2,728 | |
| | | 10,572 |

Douglas fir—

| | | |
|----------------------------|--------|---------|
| One year seedlings.. . . . | 37,296 | |
| Two year seedlings.. . . . | 200 | |
| | | 221,426 |

| | | |
|---|-----------|--|
| Total at Brandon available for distribution.. . . . | 1,464,804 | |
| “ Indian Head available for distribution.. . . . | 1,197,663 | |
| “ “ too small for distribution.. . . . | 1,345,664 | |
| “ “ Conifers.. . . . | 221,426 | |

Total stock estimated in nurseries.... . 4,229,557

On the whole this has been a very favourable season for nursery work, the maple and ash having done especially well. The maple came up somewhat thinly owing to the seed being three years old, as there was difficulty in collecting any fresh last fall, and the season before that there was a good deal of the seed affected by a fungus disease destroying its germination. We shall have, however, an ample stock to supply all demands next spring. Owing to the poor quality of the elm seed procured last summer, I regret to say that we shall have no seedlings of this variety to distribute next spring. The elm is grown two years in the nursery, or more correctly, is sown in July of one year and gets fairly started before fall, and is then allowed to remain the whole of the following season before being dug up. This year we procured good seed, but the first sowing made early in July owing to very dry weather was not very successful. A second sowing made in the middle of August has come up very thickly, though the seedlings are of course small and will not make such good plants next year as would those of the previous sowing had they germinated properly.

For tree planting in general the season has been very favourable, in Assiniboia, at least. The spring was cool, with plenty of rain, and there has been a fair amount of moisture throughout the season. The fall so far has been exceptionally wet, and it is just possible that this may induce late growth, and consequent freezing back of the young shoots when the hard frosts commence.

COLLECTION OF SEED.

This has been a good year for seed of all varieties. In the spring we collected about 50 to 60 pounds of elm seed. Arrangements have been made with the Half-breeds in the Qu'Appelle valley to pick all the maple and ash seed we shall require. Mr. MacKay has also allowed us to pick a good deal of maple seed from the trees growing on the experimental farm here. Several bushels of jack pine seed were collected in the Cypress hills and sent in by Mr. Mitchell, who also gathered some white birch seed in Alberta. A few bushels of white spruce cones picked by the ranger in the Spruce Woods reserve, have also been shipped here.

THE NEW NURSERY.

As mentioned in last year's report, the northeast quarter of section 11, township 18, range 13, west of the second meridian, one mile south of Indian Head, was set aside for the purposes of a forest nursery, as our work had increased to such an extent that the limited space that we could use on the Brandon and Indian Head farms was

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far too small. Last summer thirty-five acres of this land was broken and backset, and was this spring planted to trees, tree seed and oats, ten acres being left fallow in order to bring it into more thorough cultivation for sowing seed this fall.

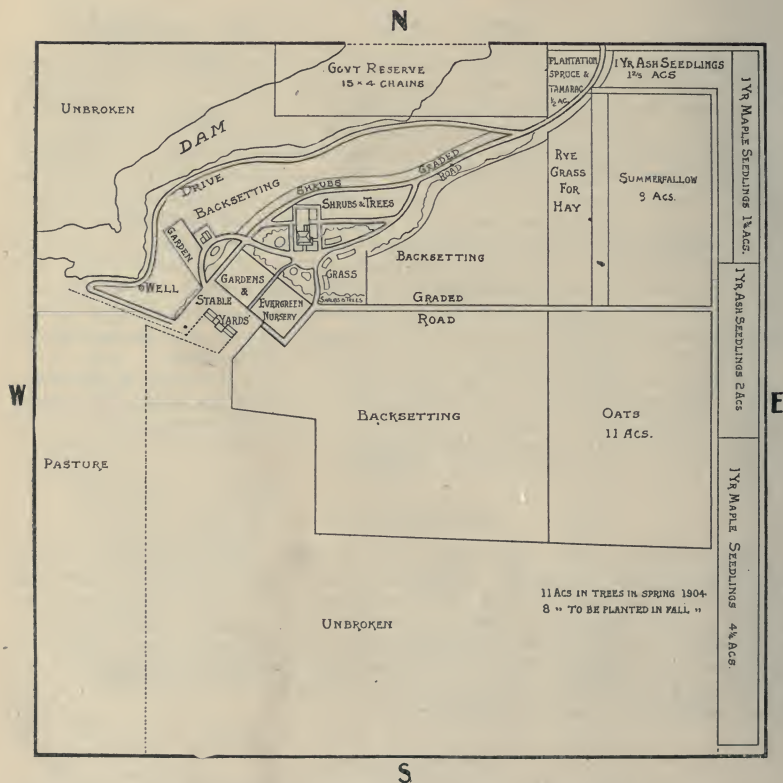
This season about forty acres more has been broken and backset. A good stone basement stable, 30 x 37 feet, a packing and implement shed, 40 x 20 feet, a dwelling house for the foreman and manager and another one for the men have been built. A

NURSERY STATION

INDIAN HEAD, A.S.S.A.

1904.

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good fence, consisting of four strands of barbed wire on cedar posts set a rod apart, has also been put up around the whole place. The necessary roads and drives have also been laid out, and most of them are now graded up. The implements and horses for

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working the place were purchased during the summer, and I am glad to report that everything is now in a very satisfactory condition. Next spring all the work will be centralized here, as nothing will be grown at Brandon. This will greatly facilitate the work, and considerably reduce the expense in proportion to the amount of seedlings raised.

This spring a belt of five rows of trees was planted on the east and half way along the north sides of the nursery. The trees were maple, cottonwood and willow. Their growth this year has been most satisfactory. A small plantation of over half an acre of native spruce and tamarac was also set out. The young trees were put 3 feet x 3 feet, and would be about five years old, the seedlings having been got in the sand hills east of Brandon two years ago and then transplanted into the nurseries here. The result of this planting is far better than I hoped for, as out of about 3,500 trees set out not more than ten at the outside have died. The situation is very exposed, perfectly bare of all shelter, and on newly prepared ground.

While in the office this winter I prepared a small bulletin on general tree planting for the prairies. The bulletin is well illustrated with photographs of plantations taken in different parts of the west and others showing the seedlings of the different varieties growing in the nursery, to illustrate more plainly the methods of cultivation recommended in the text.

I am, sir, your obedient servant,

NORMAN M. ROSS,

Assistant Superintendent.

APPENDIX No. 2.

REPORT OF ROLAND D. CRAIG, B.S.A., F.E., ASSISTANT IN FORESTRY.

BRANDON, MANITOBA,

October 16, 1904.

E. STEWART, Esq.,

Superintendent of Forestry,

Department of the Interior,

Ottawa.

SIR,—I beg the honour to submit herewith the first report of my work in the service of the forestry branch. I entered the service on April 1, 1904, and until April 27 was engaged in clerical work in the office at Ottawa. On that date I left for Manitoba to assist in the shipment of the trees from the nursery in Brandon to the Manitoba applicants. The number of applicants to receive trees was 771, and the number of trees distributed 1,145,500, made up of the following species: maple, 598,925; ash, 333,825; cottonwood, 171,250; elm, 39,725; willow, 1,775.

The flood of the Assiniboine river greatly delayed the shipment and made it necessary to haul over half the trees to the railway station at Chater. The shipping was finished, however, on May 17, after which we sowed the maple seed for next year's trees.

From May 23 to 27 Mr. Stevenson and I set out an experimental plantation of Scotch pine in the Spruce Woods timber reserve, about five miles from Sewell. Five thousand one-year olds and 4,500 two-year olds were planted in spots four feet apart, from which about one square foot of sod had been removed. We also sowed one pound each of Scotch pine, jack pine and lodge pole pine seed in spots similar to the planting spots. The soil on which this experiment was conducted was almost pure sand,

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with a covering of unbroken sod and procumbent juniper. The water table, judging by the sloughs in the vicinity, was from 4 feet to 6 feet below the surface. The plantation is partly protected on the north by a clump of spruce, and the aspect is very gently south-east. During the planting and for nearly a week afterwards the weather was dry and hot, thereby militating against the success of the plantation.

On August 23, in company with Mr. Stevenson and Mr. Wallin, I inspected the plantation and found approximately 40 per cent of the two-year olds and 12 per cent of the one-year old pines alive, and of the seed 30 seedlings of Scotch pine could be found, 130 lodge pole pine, and 20 of jack pine. These results indicate that one-year olds and even two-year olds are too small to be successfully planted under those conditions. It was noticeable that the seedlings succeeded best in the deeper holes and that shade from the south was beneficial.

Since June 1 I have been engaged in the inspection of plantations and of ground prepared for plantations, in the following localities: along the Canadian Pacific Railway, the Souris section, Arcola branch to Sinclair, Estevan section, Lyleton branch, main line from Brandon to Winnipeg, Portage la Prairie to Gladstone, and along the Canadian Northern from Winnipeg to Portage la Prairie.

In the plantations I have inspected I have estimated that at least 90 per cent of the trees are alive and growing well. Of the different species I would say that of maples 92 per cent are alive; ash, 95 per cent; elm, 85 per cent; cottonwoods, 75 per cent; Russian poplar, 60 per cent; willow, 90 per cent. Many cottonwoods have been killed during the last year by rust, and some have winterkilled on account, no doubt, of growing too late in the fall. The Russian poplars are very unsatisfactory on account of their susceptibility to the black rot.

On the whole the plantations have received very good care, and the owners are enthusiastic over the results of their labours. The effect of cultivation on the vitality and the rate of growth is very marked.

I would suggest that in future the ash seedlings be kept in the nursery until two years old, for the one-year olds are so small that the planters do not appreciate their value and on account of their relatively slow growth for the first few years they should be given some advantage over the quicker growing species such as cottonwood and maple. Maples and cottonwoods transplant best when one year old.

There are many applications for evergreens, and in view of their value as a winter shelter, spruce and Scotch pine should be included in the distribution as soon as possible.

At present I am looking after the heeling in of the maple and cottonwood seedlings at the nursery in Brandon.

I have the honour to be, sir,

Your obedient servant,

ROLAND D. CRAIG.

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APPENDIX No. 3.

REPORT OF HUGO CLAUGHTON-WALLIN, F.M., TREE PLANTING INSPECTOR.

INDIAN HEAD, ASSA.,
September 25, 1904.

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I have the honour to submit herewith a report of my work carried out under your instructions.

I left Indian Head July 18, for Brandon, where I continued for a few days my work of preparing exhibits for the Dominion Exhibition at Winnipeg, which work I had started at Indian Head. I arrived at Winnipeg on the 22nd. After having, under your and Mr. Ross' supervision, arranged the forestry exhibition there, I was left in charge of same. At the close of this exhibition the forestry exhibits were moved to Brandon, where I, after helping Mr. Rowan to get it in shape for the Brandon fair, left him in charge and went to Killarney, Manitoba, where I joined Mr. A. P. Stevenson, inspector of tree planting. After having for ten days accompanied him on inspection work I started my own work of inspection on August 24, and have since then visited 280 farmers; the Canadian Pacific Railway main line from Brandon to Kirkella, Forest Extension, Miniota branch and Canadian Pacific Railway North-western branch from Minnedosa to Gladstone being that part of my district hitherto gone over.

I am very pleased to say that in most places where the trees have been properly planted, well hoed and cultivated, surprisingly good results are obtained; and the cases where the trees owe their death or slow growth to the neglect of their owner to take proper care of them are really very few. I found some plantations north of Griswold, Oak Lake and Virden, where the percentage of dead trees, especially among the cottonwoods, was rather large—from 15 per cent to 20 per cent in some places. When making remarks on it I got the answer that the seedlings were at the express office for some time before the applicants had a chance to get them unpacked, the cause being the flood of the Assiniboine river. This delay in their planting out may have caused some of the trees to heat or, if not packed so closely, to dry out.

I will try to give an approximate percentage of the various kinds alive.

Elm.—Not many of them were sent out to the parts I have visited, but they seem to do well. Ninety per cent alive.

Ash.—Has given a very good result. They make a rather slow growth the first summer before they get accustomed to the new soil, but seem to be just as hardy as the Manitoba maple. In fact I dare say that I have found a larger percentage of living trees among them than among the maples. Ninety per cent alive.

Manitoba maple or Box elder.—Ninety per cent alive.

Cottonwood.—About 88 per cent alive. At a few places I found some dead specimens among the cottonwoods of 1902 and 1903. I can find no other cause for it than that they have been killed back last fall, sometimes only the young sprouts, but sometimes to the root, the late growth not being ripe enough to stand severe cold. But I do not think that as an average more than 5 per cent are dead. It was especially around Forest I found that trouble.

The instructions of the department have as a rule been punctually carried out.

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A mistake very often made by the farmers is their preparing their land too close to buildings.

I am, sir,

Your obedient servant,

HUGO CLAUGHTON-WALLIN.

APPENDIX No. 4.

REPORT OF A. P. STEVENSON, TREE PLANTING INSPECTOR.

NELSON, MANITOBA,
September 21, 1904.

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I have the honour to submit the following brief report on the work done by me under your instructions as tree planting inspector in connection with the work carried on in this province by the forestry branch of the Department of the Interior.

In accordance with instructions received from you in February of this year, I addressed a series of farmers' institute meetings during the month of March. Meetings were held at the following places in Assiniboia: Moose Jaw, Pense, Lumsden, Regina, Edgely, Qu'Appelle, Sintaluta, Wolseley, Summerberry, Grenfell, Broadview, Whitewood and Moosomin. These meetings were fairly well attended, in a number of cases over seventy being present. The subjects taken up and discussed at these meetings included an outline of the benefits of a good shelter belt to the prairie farmer from a money point of view in adding value to the farm, as well as from the aesthetic side. The government's co-operative scheme was outlined, small sections of timber were shown which give a good object lesson on the quick growing properties of some of our native trees when grown under proper conditions, such as are set forth and advocated by the forestry branch, all of which appeared to be duly appreciated by those present.

Arrangements were also made to address a series of farmers' institute meetings in Manitoba, but on account of the snow blockade it was found to be impossible to carry out these arrangements.

The spring was cold, late and backward, and on that account it was April 25 before preparations were begun for the shipping out of trees by the forestry branch at Brandon. The premises used for the packing and handling of our trees on the experimental farm during the past two years were found to be entirely too small to accommodate this spring's operations; consequently a large tent, sixteen by twenty-four feet, was hired for a few weeks and used in addition. Mr. Roland Craig, who had recently joined the forestry branch, arrived in Brandon on May 1, and assisted in the work of packing and distributing. This work started on May 2, and over 100,000 trees per day were shipped out till the 7th, when the Assiniboine river rose and flooded the entire valley, cutting off all communication with the experimental farm and Brandon, no team being able to cross between these two places till the 20th. After considerable difficulty teams were secured and trees were carted to Chater, and all further shipments were made from that place. All shipments were completed on May 17. Altogether the shipping season had been one of the most unfavourable in my experience principally on account of the extreme hot weather setting in as soon as the late spring opened, trees bursting out almost in full leaf in two or three days.

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We completed the sowing of five acres of maple seed on the 20th, and shortly after I went to the Spruce Woods south-east of Sewell, accompanied by Mr. Craig, for the purpose of planting a quantity of Scotch pine seedlings. No preparation of the soil had been made, the trees being planted in the soil pretty much as nature left it. Five thousand one-year and 4,500 two-year old Scotch pine were planted. These trees were all grown in the first place at Indian Head by forestry branch officials. Three pounds of pine seed was also sown of the following varieties : Murrayana, divaricata, and sylvestris. We finished planting all of the above on May 27. On August 23 the place was visited and examined, and the following results were found: 1-year Scotch pine, 12 per cent alive; 2-year Scotch pine, 40 per cent alive; of seed sown, Murrayana gave 125 seedlings above ground; sylvestris, 30; divaricata, 20. The above list of trees planted I consider fairly good when the conditions are considered. The weather at planting and for a week after was dry and hot; consequently the 1-year olds have nearly all died, while the 2-year olds, with more vitality and better roots, made a fair showing. Three-year olds would, I have no doubt, give even a better showing. The small results from the seed sown can be explained to a large extent by the carrying off of the seed by birds. This difficulty could be obviated by mixing red lead with the seed before sowing.

I began the work of inspection the beginning of June. Mr. Craig accompanied me on this work till the 13th, when he started alone on the work of inspection in the south-western part of the province, and later on the main line of the Canadian Pacific Railway from Brandon to Winnipeg.

On August 11 Mr. H. C. Wallin joined me at Killarney and accompanied me till the 20th, when he took up the work of inspecting in the northern part of this province.

One million one hundred and sixty-eight thousand five hundred and ninety-five trees were sent to 771 applicants this spring within the province of Manitoba. The varieties of trees sent out consisted of Manitoba maple, elm, ash and cottonwood. The total number of applications for trees to be visited in Manitoba this summer is 1,209. These are widely scattered all over the province. Up to the present date I have inspected the farms of 400 applicants. It has been noted that the trees sent out this spring have done remarkably well. Ninety-five per cent are alive. This fine showing is the result of having abundance of rain during the months of June and July. I regret to have to report that a number of the trees planted in 1902 and 1903 in the district west of Crystal City have been injured during the past winter. Ten per cent of the cottonwood trees are dead. I noticed trees of this variety that had been planted eight years dead this spring in this same district. The maples also showed some injury, being cut back to the ground in some instances, but all were growing up again vigorously. On the other hand, from Crystal City east no damage whatever was noticed, but fine growths of from ten to twelve feet high, planted 1902, are to be found. I have noted with satisfaction this year the behaviour of the ash tree. Where the cottonwood and maple were cut down this tree has stood without the slightest sign of injury. It has had also the prejudice against it of being a slow grower, but this has been largely overcome this year by its fine sturdy growth, and where mixed with maple its growth is equally as fast as the latter. The greatest enemy of the elm on the prairie is the jack rabbit which appears to delight in browsing off this tree. A shot gun is the only sure remedy.

Concerning the general condition of the trees in the groves set out under the forestry branch supervision, I might say that with the exception of the district named, 85 per cent of 1902 trees are growing, 80 per cent of 1903 trees are growing and giving splendid results. I notice that in a number of plantations set out in 1902 no further cultivation will be necessary, the trees entirely shading the ground, rendering the growth of grass and weeds impossible.

It is rather difficult to arrive at a proper conclusion as to the cause of the death of so many young and also old trees in the south-west of Manitoba this spring. I think the yellow rust on the leaves of the cottonwood weakened the vitality of the trees last

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fall. This followed by a severe winter resulted in a large number of deaths this spring. With the maple a heavy frost during last September, while the young wood was full of sap was a considerable factor in the killing back, I have no doubt.

This co-operative tree planting scheme is growing in favour each year. As fine groves are beginning to show up all over the prairie all shades of opinion are applauding the movement and sincerely hope the good work will go on.

Your obedient servant,

A. P. STEVENSON,

Tree Planting Inspector.

APPENDIX No. 5.

REPORT OF ARCHIBALD MITCHELL, TREE PLANTING INSPECTOR.

MACLEOD, ALBERTA,

October 8, 1904.

E. STEWART, Esq.,

Superintendent of Forestry,
Ottawa.

SIR,—I have the honour herewith to submit the following brief report of the work done by me in 1904 in connection with the Forestry Branch of the Department of the Interior.

On instructions from you, I joined Mr. M. D. Geddes, of Calgary, at Pincher Creek, on February 29, and with him addressed farmers' institute meetings at Pincher Creek, Fishburn, Claresholm, High River, Okotoks, Spruce Vale, Carstairs, Didsbury, Olds, Innisfail, Markerville and Red Deer. At most of these places two meetings were held. In all I addressed nineteen meetings, and a great deal of interest was taken in forestry matters. In travelling through the country last year, I remarked a great lack of knowledge as to the training of shade and ornamental trees. Nearly every farmer makes an attempt at growing a few trees of this class, but they are usually very branchy, and easily broken and destroyed for want of a little judicious pruning. Wherever, therefore, I could get specimens, at the evening meetings, besides briefly explaining the co-operative system, I gave a demonstration in pruning, using actual specimens, and giving reasons for everything done.

In the more wooded country, from Olds to Red Deer, I warned the farmers against a complete clearing of their lands, and advised the retention of about twenty or thirty acres of trees as windbreaks, and for the supply of firewood and fencing material in the future, as well as for the regulation of the rainfall. I pointed out the importance of looking upon such as part of their regular crop and advised protecting it, and dividing it into equal areas, one to be cut over every year for the supply of the farm. Every portion so cut over would restock itself, and at the end of the rotation the first area would be ready for cutting again. I showed also how it would be possible to improve the quality of the timber by restocking bare places in the cut-over areas with ash and elm seedlings, and by small spruce and tamarack plants pulled from the swamps in the neighbourhood. This was well received at the meetings, and in this connection I should like respectfully to draw your attention to this side of farm forestry, and suggest that steps be taken to find the size of plantation necessary for the needs of the farm, and to maintain the humidity of the country, the most desirable rotation, and whether a clear cut or a selection system, and the best means of

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improving the timber of the more wooded portion of the country, and so on. Some farms in northern Alberta are already completely cleared. Forestry is a branch of agriculture. The average farmer knows very little about it, and it seems to me that much good work could be done by your branch in this direction.

I commenced inspection work on June 6. There has been an increase of 103 applicants in my district over those of last year. We have had a very dry summer, especially in southern Alberta and western Assiniboia, and yet I am pleased to report the percentage of living trees planted in 1904 is very good, namely, maple, 67 per cent; cottonwood, 83 per cent; Russian poplar, 96 per cent; ash, 88 per cent, and elm, 87 per cent. Several maple consignments were heated in transit, which brings down the average somewhat. In the irrigated country, contrary to what might have been expected, I found many plantations suffering from the drought. Early cultivation had been neglected, and the water was applied too late. Those who could not irrigate knew they had to depend on their hoes and cultivators for success, and as a result their trees were clean and in excellent condition. An idea still prevails there, and indeed it does in most of the west, that trees will not grow without artificial watering. This is entirely erroneous, and as far as I have seen wherever plantations have got ordinary care and without any irrigation there has not been the slightest sign of distress on account of dry weather. Of course where irrigation has been judiciously used the results have been very good.

Last winter's frosts did some damage as usual in freezing back part of the previous summer's growth. In the case of the maple the better the cultivation the better the tree seems to be able to stand the winter. Some of the 1902 maples are now seven to eight feet high. The cottonwoods seem to kill back considerably the first two years and then harden up and keep their growth. Some of the 1901 cottonwoods made three and four feet last year, which stood the winter well, while 1903 trees just beside them were killed to within a few inches of the ground. Very few are completely killed, and the roots are usually able to send out vigorous shoots.

For the better success of the plantations, I would respectfully suggest that in the instructions sent to each applicant pressing directions should be given to cultivate between the trees as soon as they are planted. This is very important, especially if a dry spell should occur immediately after planting.

I should like also to suggest that the L method of spade planting be given in the instructions as an alternative to the plough planting. The latter method is excellent when an efficient ploughman is at hand, but most of the settlers are not first-class ploughmen, and I have not seen a really good specimen of plough planting yet. The rows are usually crooked and irregular in width, and sometimes the opened furrow is neglected and not filled in. This summer I have shown each new planter how to plant after the L method, getting a spade and actually planting a tree before him. This method is not much slower than the other, one man working alone being able to put in about 1,000 plants per day. It is useful alike for cuttings and rooted plants, and has the further advantage of giving the least opportunity for the drying out of the under soil, as that is only exposed in very small quantity and for a very short time.

The working of the L method is briefly as follows: The perpendicular cut of the L is made first. The horizontal one is then made by thrusting the spade down about two-thirds of its length. The handle is depressed and then pushed well forward, which movements cause a hollow to appear under the blade. A plant is thrust into this, the spade jerked out, the earth falls on the root, and it is then trodden firmly. A slight motion of the foot throws a mulching of loose earth around the trees, and the operation is complete. Where the growth of the cottonwood has been very rapid, as it usually is in the second year, I have advised cutting back the summer's growth to about two-thirds of its length. This helps the wood to harden before the fall storms or early frost strikes it. Perhaps if this were also inserted in the instructions to planters it might become more generally known, and might help to get the plantations over their early years more easily.

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While in the Cypress hills south of Medicine Hat I collected a quantity of pine cones for the nursery, and also while in the Innisfail and Beaumont districts I collected some white birch seed.

I have the honour to be, sir,

Your obedient servant,

ARCHIBALD MITCHELL.

APPENDIX No. 6.

REPORT OF ANGUS MacKINTOSH, TREE PLANTING INSPECTOR.

INDIAN HEAD, ASSA.,

October 24, 1904.

E. STEWART, Esq.,
Superintendent of Forestry,
Department of the Interior,
Ottawa.

SIR,—I have the honour to forward you my report upon the tree planting inspection work with which you entrusted me last June. At that time Mr. Ross, your assistant, gave me a list of settlers that I had to visit in the southern and eastern parts of Assiniboia; and when I exhausted that list, about the end of August, and reached Indian Head, he supplied me with another which took me into the north-western part of the territory, and also into Saskatchewan.

In Assiniboia I found that the most of the settlers who for the last two or three years had availed themselves of the Dominion government's offer of free trees, had not only carried out the instructions and rules under which they got them, but that some of them had become enthusiastic in the matter of tree planting. The success of those who gave the trees they got the necessary care and now have flourishing plantations, has been the means of stimulating their neighbours to try and do likewise. Wherever I went the desire to make prairie homes more comfortable and picturesque by tree planting was manifest. To the lover of trees, engaged in inspection work, the long weary drives, fording creeks, wading through sloughs, and sharing the rough couch (always hospitably given) of settlers beginning life in the North-west, are in a measure compensated for by the sight of thriving, though small, plantations of trees dotted here and there over the treeless plains, and trees that have only been planted three or four years, standing from six to eight feet in height.

The plantations made under government guidance I generally found successful. There were of course a few exceptions, but the exceptions were invariably due to neglect on the part of the owners.

The hardiness of trees was put to a severe test last winter, which was an exceptionally hard one, but I am glad to say that all the varieties sent out by the government, excepting a few cottonwoods in the Fleming, Moosomin and Wapella districts, have stood the test.

In northwestern Assiniboia and up the Prince Albert line into Saskatchewan I travelled over a good deal of country where a number of the applicants I had on my list were new-comers that amid other and more pressing work had not been able to thoroughly prepare ground for trees. They are all, however, most desirous to begin and to shelter and embellish their homes with trees. There will be quite a number of trees required for that part of the North-west next year. Wherever plantations were

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made they were a success, and I anticipate still greater success in the future when settlers come to thoroughly understand the care and attention that should be given to trees on the prairies.

I averaged the failures amongst the trees planted last spring, on the places I visited, at 10 per cent, and the percentage of older trees that succumbed to the severity of last winter at about the same figure. The greatest loss was among the cottonwoods. Manitoba maple, ash, elm and Russian poplar stood the winter better.

The number of places I visited was 288.

I am, sir,

Your obedient servant,

ANGUS MacKINTOSH.

APPENDIX No. 7.

REPORT OF JOHN CALDWELL, TREE PLANTING INSPECTOR.

REGINA, September 17, 1904,

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I have much pleasure in herewith submitting to you my report on forestry work in my district this season.

My route for the season was the Manitoba and North-western Railway from Minnedosa to Yorkton, the Miami line from Indian Head to Moosejaw and the Soo line.

The forestry work has only begun, but interest in the work is growing fast, which will mean a heavy demand to supply the wants of the farmers.

The varieties planted so far consist mostly of maple, cottonwood and ash, also a few elm, Russian poplar and Russian willow. The native maple is a good reliable old standby, easily grown, easily transplanted, and a very useful all-round tree. The cottonwoods have done fairly well. In some places they have frozen back considerably, but generally come again. I am still in favour of a proportion of cottonwood. Sometimes they are tall and slim and should have the top shortened when planting; otherwise they will become top heavy and lop over. The ash is, of course, a slow grower, but is sure to prove a long liver and a valuable wood. Probably 85 per cent of all varieties of seedlings planted are growing. Very few Russian poplars or willows have been sent out, and there is quite a call for these hardy fast-growers. I am very much in favour of sending out quite a lot of Russian laurel, French laurel and the acutifolia willows rooted or in cuttings. Rooted is best, and I will say that of all the trees grown in this country French laurel is the hardiest; also a fast grower and will do well on either high or low land. The Russian laurel is fairly hardy and a very pretty tree. None of these two laurels have been sent out, and I am much in favour of growing large quantities. Willow cuttings can be grown at 75 cents per thousand and rooted at probably \$2 per thousand. There is a prejudice against the Russian poplar in eastern Manitoba on account of the fungus, but from Brandon to Calgary the finest looking trees we have are the Petrofsky Russian poplar, about thirty-five feet high and probably fourteen years old. There are also a few cottonwood (I think native) looking about the same size and just as nice. If we plant a variety of all our best trees in all the different districts we will soon see which trees are most suitable in each district. I would send out poplars in cuttings; if they once get started they do best that way.

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I was very much pleased to see such large quantities of splendid stock growing at Brandon and Indian Head for distribution, and I was especially well pleased to see the success that has attended the raising of young evergreens, principally spruce, pine and larch, at the nurseries at Indian Head. Of all trees to make home homelike and cheerful, there is nothing like the evergreens, and the propagation of these conifers should be very much encouraged.

We may find it a little harder to induce farmers to put out plantations for posts and wood, but it will pay them well to do so. I am burning my summer wood at Virden from land that was bare prairie fourteen years ago. The experimental farms are splendid examples of what can be done, and all farmers in open districts should fall right in line in planting out forest trees.

The forestry work, as far as it has gone, is very hopeful and encouraging.

I am, sir, your obedient servant,

JOHN CALDWELL.

APPENDIX No. 8.

REPORT OF JAMES LEAMY, CROWN TIMBER AGENT, NEW WESTMINSTER, B.C.

NEW WESTMINSTER, B.C.,

November 10, 1904.

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I have the honour to submit herewith my report for the past season of what has been done in this province under my supervision respecting forest fire protection.

I might say at the start, that we had an exceptionally dry season, probably the driest for very many years, and although there were numerous outbreaks of forest fires in various districts, comparatively very little damage was done to the timber within the railway belt. This can be accounted for by the efficient work accomplished by the fire rangers, of whose efforts I cannot speak too highly.

One of the outbreaks of fire which occurred during the summer was in Yoho Park, at the summit of the Rocky mountains, which did considerable damage to the young growing timber. This fire was attended to by the park ranger, who employed a number of assistants. He was also assisted by some of the Canadian Pacific Railway employees.

Two other fires occurred in this park, one at the first crossing of the Kicking Horse river and the other at Palliser Crossing. Little or no damage was done at either of these fires, as they both started on ground which had already been burnt over, and were extinguished by Mr. Ashdown, the fire ranger, before much headway had been made.

A very serious fire occurred on the upper Columbia river, outside the railway belt, on lands owned by the provincial government. A large quantity of timber was destroyed, and it required strong efforts on the part of the fire ranger to prevent the flames spreading to the timber inside the belt. I am pleased to say he was successful, and that no damage within the belt occurred. I do not know the origin of the fire in this instance.

Another large fire occurred east of Donald. It started outside the railway belt, and burnt over a considerable portion of ground, doing damage to much of the young

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growing timber. The ranger in this district went to work with a large gang of men, and succeeded in keeping the fire outside the limits, no damage being reported. This fire is supposed to have been started by lightning, as it came from a direction where there were no settlers, and no other cause can be assigned for the outbreak.

A fire occurred, too, at the head of Beaver river, burning over a large area, but as it was confined principally to the summits of the mountains, but small damage was done to the merchantable timber. This district is looked after by Mr. Frank Ashdown, who did very efficient work all summer in the prevention of the spreading of fires.

Another fire occurred at Silver Creek, near Albert Canyon, which got under considerable headway, and did some damage, owing to the fact that it was almost impossible to get men in the neighbourhood to fight the fire. However, the ranger succeeded in getting a gang together, and was successful in preventing much loss to the timber in danger.

From Albert Canyon to Revelstoke numerous small fires were reported along the line of the Canadian Pacific Railway, but in each instance they were promptly extinguished, with little or no loss to the timber threatened. The fires along the Illicilliwaet river were supposedly started by sparks from locomotives, and along the Columbia river, north and south of Revelstoke, the cause for fires has been assigned to an electrical storm passing over that vicinity, immediately after the occurrence of which fires were observed in seventeen different places. All were promptly extinguished by the fire ranger, who employed a large number of men to help him.

A very large fire occurred at Fish Creek, on provincial government lands, at one time endangering the mining town of Camborne, which is situated just at the boundary of the railway belt. This fire was attended to by Mr. Bullard, to whom much credit is due for the prevention of any damage to the timber within the belt, though at one time a large loss seemed inevitable.

Only one fire was reported in the valley of the Eagle river. This was supposed to have been started by the railway employees at a place known as Bowie Siding. The sectionmen at once came to the assistance of the fire ranger, and in consequence little or no damage resulted.

Numerous fires occurred in the Shuswap Lake district, all of which were supposed to have been started by settlers in clearing their lands or by Indians. The latter have been known to start fires in the woods with the intention of encouraging the growth of wild berries. A serious fire occurred at Seymour river, which empties into Shuswap lake. This, too, was on provincial lands, and a large area of fine timber was destroyed. The fire was kept outside the railway belt, however, and I am glad to say that no damage was done on this side of the belt. A large number of men were employed in preventing the spreading of these fires, the Columbia River Lumber Company having to close down their mills at Kault and turn out all hands to assist. Little damage was done at any of these outbreaks, and this was entirely due to those who lent their help in extinguishing the flames when they were first noticed.

Fires occurred at different intervals on the Spillimacheen river, but were attended to by the ranger and by men employed under him. Here, too, no damage of any worth was done to the timber within the belt. The fires on this river were started, it is thought, by some one with the intention of destroying the timber throughout that district. One man was known to have threatened to do this, and on leaving Enderby for Mable lake seven different fires occurred after he passed up the road. I instructed the fire ranger to immediately arrest him, but before this could be accomplished he had disappeared from the country, and has not been seen since. I may say here that it is extremely difficult to obtain eye-witnesses of actions of this sort, and without this evidence no magistrate will convict.

A few fires occurred in the Kamloops district, but did not do any serious damage. The Kamloops Saw Mill Company rendered excellent service on many occasions, by putting on men when danger threatened and were at all times of great assistance to the fire ranger in that vicinity.

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Small fires were reported at Lytton and west of this town; no damage, however, the ground having been in each instance already burnt over.

Only one fire occurred within the railway belt in the coast district, on limit 'B.' This fire was undoubtedly set with the deliberate intention of destroying the timber on this limit, by parties desirous of settling on the land in question. The fire ranger, Mr. Johnson, succeeded in subduing the fire before much damage had been done. This fire, I might mention, occurred as far back as May last.

Large fires occurred on provincial lands up the coast and in the Crow's Nest Pass district; also on Vancouver Island. In many cases vast areas of timber were destroyed and at one time the smoke from these fires along the coast was so great that it rendered navigation both difficult and dangerous. On the American side fires were very prevalent, and much damage was done to the timber. In the Kootenay district provincial lands again suffered, and much destruction of valuable timber was reported.

On consultation with the fire rangers employed under my supervision, I feel I can assure you that in the railway belt not more than two million feet of merchantable timber was destroyed by fire during the whole season, extending from the beginning of May to the middle of October; however, I am sorry to say that a large quantity of young growing timber, which would be valuable in the immediate future, was destroyed. It would be impossible to estimate the quantity of this latter timber.

That the owners of timber limits in this province appreciate the efforts which have been made by myself and the fire rangers under my supervision will be evidenced by the letters of appreciation which I have received from them and copies of which have been forwarded to you, also letters in the same strain received by the Deputy Minister of the Interior. It has been a hard, trying season, and it is certainly gratifying to know that what has been done has been well and successfully done. The fire rangers deserve great credit for their work, which has been arduous and in many instances dangerous.

In conclusion, I would again respectfully suggest that the provincial government be requested to declare a close season for setting out fires, say during the months of June, July and August. While this might appear to be a hardship to parties anxious to clear their land for cultivation purposes, this might be overcome by the fire rangers being empowered to issue a permit to each person desiring to set out a fire during said close season, providing, of course, that the party in question could satisfy the ranger that the fire would not be allowed to spread beyond the area to be cleared, and that he would give proper and careful attention to the same. This system, I think, would work well in this province, and would prove the means of saving a large quantity of timber, which otherwise would be in constant danger of destruction.

All of which is respectfully submitted.

JAMES LEAMY,
Crown Timber Agent.

APPENDIX No. 9.

REPORT OF JOS. E. STAUFFER, FOREST RANGER.

DIDSBURY, ALTA., October 15, 1904.

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I beg to submit a report of the work done by the forest fire rangers under my supervision in Alberta during 1904.

The forest area of Alberta, from the international boundary to the North Saskatchewan river, was last spring divided into suitable districts and a forest fire ranger appointed in each district. Each ranger was instructed to keep warning notices posted up at all public and conspicuous places; along the trails leading to and through timber; on and around all timber berths, and also on a building of each settler living in, or within five miles of, timbered country. He was also instructed to get all the settlers in his district interested in the necessity of protecting our forests from fire, and thus endeavour to receive their co-operation in the prevention of the same. These rangers were also instructed to do everything possible to prevent the spread of fires, and where necessary to employ assistance for that purpose. Considering that the rangers were all new at the work, I must state that each did his work very satisfactorily.

We had several fires this year, but only one that resulted very seriously. This was a fire south of the Crow's Nest Pass Railway near Blairmore, Alberta, which destroyed valuable timber on timber berth Nos. 80 and 179. About July 17 a fire started near the south fork of the Old Man's river, on timber berth No. 80. Fire Ranger C. B. Miller, with several men, endeavoured to keep it north of the river, but it got across, but was checked at Canyon Creek. The cause of this fire is unknown, but it is said to have been started by lightning.

On July 23 a fire started on the Canadian Pacific Railway right of way in the grass near Crow's Nest lake. Near the place where the fire started, and on the edge of the right of way, was a pile of dry logs placed there by the construction gangs of the Canadian Pacific Railway. The fire reached these dry logs and immediately got beyond control, the prevailing high winds carrying it very rapidly in a southeasterly direction until it reached the fire burning on the south branch of Old Man's river. The total area burnt over amounts to one hundred square miles approximately.

There was also a fire near the head waters of the Medicine river, which burnt over a large area, but the damage was not great on account of the same area having been burnt over several years ago.

I am, sir, your obedient servant,

JOSEPH E. STAUFFER.

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APPENDIX No. 10.

REPORT OF C. A. WALKINSHAW, FOREST RANGER FOR THE TURTLE MOUNTAIN TIMBER RESERVE.

BOISSEVAIN, MAN., October 13, 1904.

E. STEWART, Esq.,
Superintendent of Forestry,
Ottawa.

SIR,—I beg to submit to you my report on Turtle Mountain permanent timber reserve for the past year.

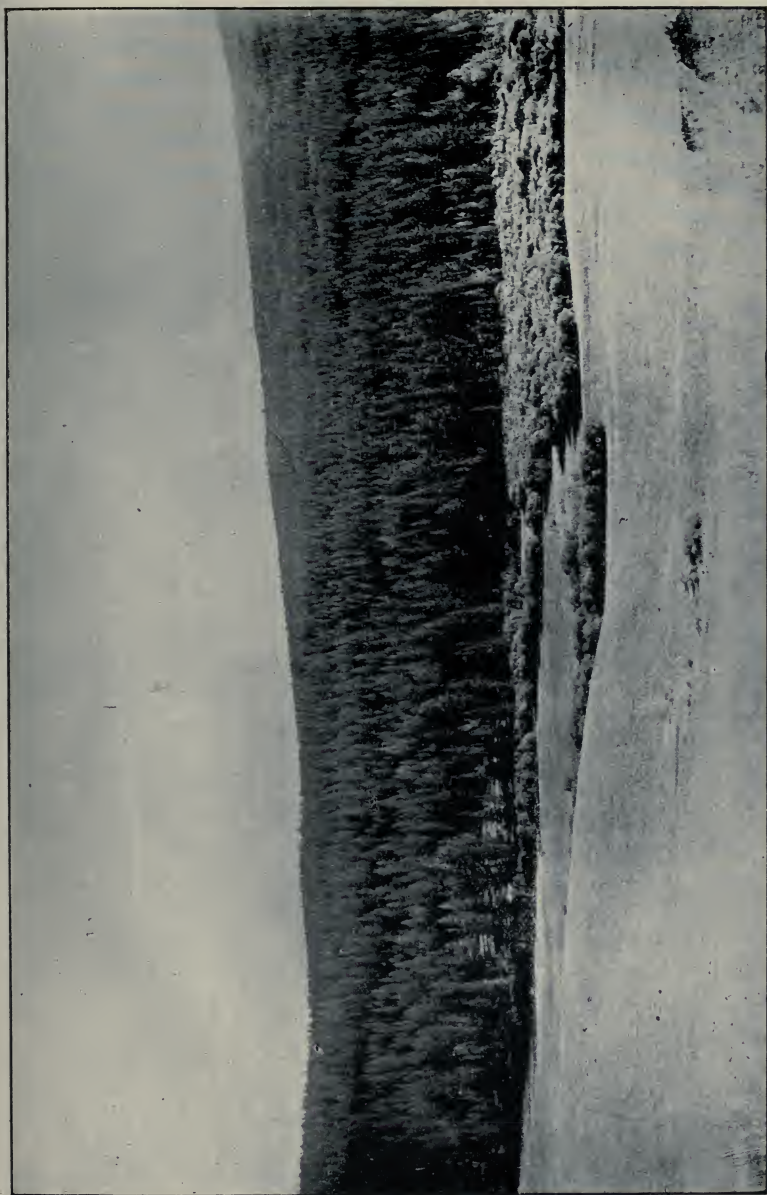
I am happy to state that for growth of young trees and freedom from fires this has been the best year in the history of the reserve. My assistants and myself have been so diligent in patrolling the reserve that not one single fire has occurred so far this year. I may also mention that the house and stable built this year in the reserve for the accommodation of the ranger has been of great value, as he is on the ground at all times and in a position to stop fire coming from the American side. The young trees on some sections have made wonderful growth. Two or three years ago they were almost bare, and to-day there is a beautiful young forest. I confidently expect in five or six years to have a grand reserve, provided of course that a sharp lookout is always kept for fire. I may also say that I make it a point of my work to request the settlers on the American side to be as careful as they possibly can in burning off their ground not to let fire get away from them. Every man promised that he would not set fire where it was likely to run and do damage.

We will keep a strict watch till the end of the season which is drawing now to a close.

I am, sir, your obedient servant,

CHARLES A. WALKINSHAW,

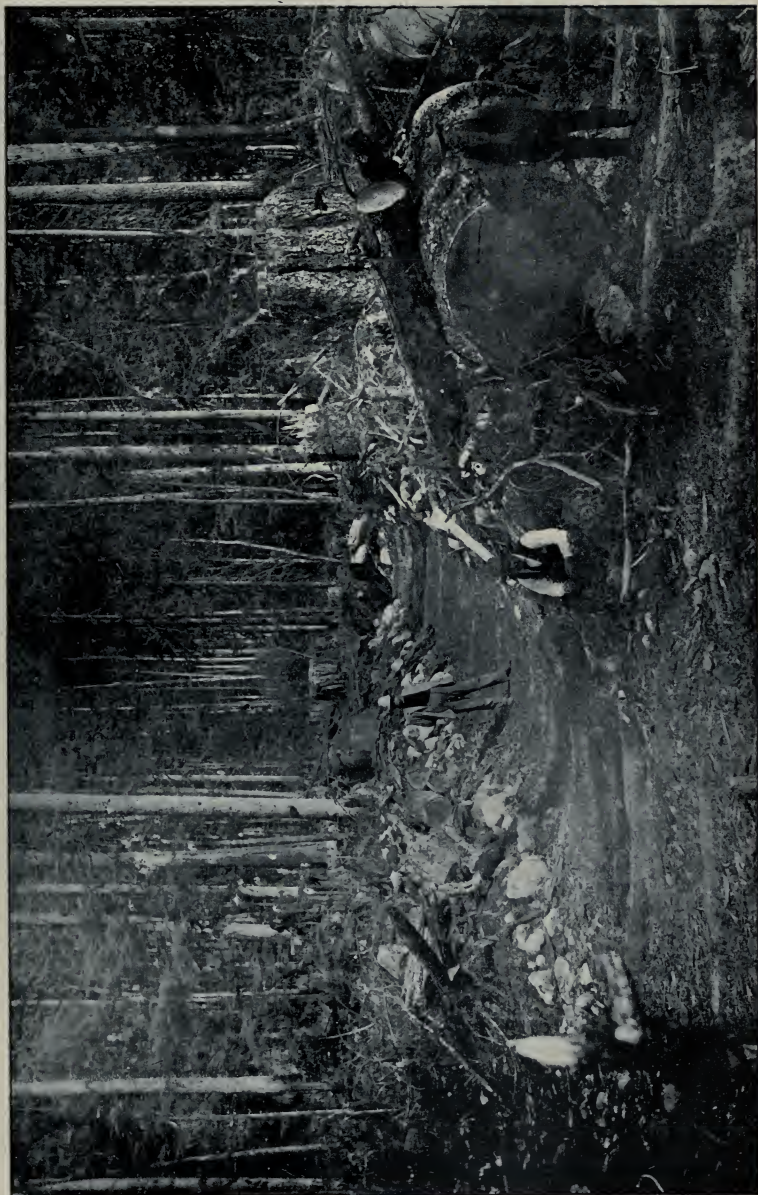
Forest Ranger.



LONG LAKE TIMBER RESERVE, SOUTH-WEST OF KAMLOOPS, B. C.



IN THE FOREST NEAR GLACIER, B. C. TAKEN BY W. S. VAUX, OF PHILADELPHIA, PA.



BRITISH COLUMBIA LUMBER WOODS, SHOWING LOG ROAD.



SCOTCH PINE SEEDLINGS (5 YEARS OLD), GROWING ON FARM OF G. & B. SPRING-RICE, NEAR
SPENCE, N. W. T.



FORESTRY NURSERY STATION, INDIAN HEAD, N. W. T.



CEDAR TREES (*THUYA GIGANTEA*) IN STANLEY PARK, VANCOUVER, B. C.

